May 17, 2004, 04:56:59; Search time 2791.11 Seconds (without alignments) 10714.982 Million cell updates/sec using sw model - nucleic search, Title: Perfect score: Sequence: OM nucleic Run on:

US-09-367-052-3
690
1 ctgcacctgtcagtcggctga......gcctgaaccccatcctctat 690

IDENTITY NUC Gapop 10.0 , Gapext 1.0 Scoring table:

6940544 residues Total number of hits satisfying chosen parameters: 3470272 segs, 21671516995 Searched:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Minimum DB seq length: 0 Maximum DB seq length: 200000000

GenEmbl:\* Database :

11: 90 ba: 4

12: 90 ba: 4

13: 90 ba: 4

14: 90 ba: 4

16: 90 ba: 4

17: 90 ba: 4

18: 90 ba: 4

11: 90 ba: 4

12: 90 ba: 4

13: 90 ba: 4

14: 90 ba: 4

15: 90 ba: 4

16: 90 ba: 4

17: 90 ba: 4

18: 90 ba: 4

18

em\_ro:\*
em\_nts:\*
em\_un:\*
em\_ntg\_inn:\*
em\_htg\_inn:\*
em\_htg\_inn:\*
em\_htg\_other:\*
em\_htgo\_mum:\*
em\_htgo\_mum:\*
em\_htgo\_mum:\*

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	Z80112 Mus musculu	031665 Mn	7747 Mu	OIII3 MUS	Mus	9582 M.muscul	000803 Mou	9581 M.mus	45861 Pa	47556 Mus musc	452185 Rattus	22097 Rattus	7097 Rattus	0 0	osy Papio 312 Dynasty	9084	2210	2211	2213	2214	2218	2227	2228	2231	2613	5894	9128	3082	227	2220	1777	2223 Macaca	2225 Macaca	2226 Macac	2229 Hylobat	2230 Hylobat	5185 Sequenc	X482330 Sequen	226095 Therapeu	F025375 Homo sap	Y242129 Нопо	06660 Ното вар	
DB ID	MMLCR1	0 BC031	0 D87747	MMITS	10 MMU65580	O MMLE	0 AB00	O MMLE	AC145	AC147	0 AF45	AC122	2 ACIU/09/	TO COLE	AF031	AF178	AF172	AF1723	AF4526	AY1856	AF2291	AF1780	AF1723	AFT/23	AF1/24	DE1 72	AF1722	AF1722	AF1722	AF1722	AX2561	AX4823	BD2260	AF0253	AY2421	BT0066	ALIGNMENTS						
Query Match Length 1	.0.	0.0	0.0 187	9.8 147 700	100	8.8 157	8.8 180	8.8 377	8.8 17537	8.8 18521	3.9 105	3.9 19014	3.9 24093	4. F	5.9 105 5.4 104	5.2 100	5.2 104	5.2 104	5.2 104	5.2 104	5.2 104	5.2 104	5.2 104	5.2 104	5.2 105	5.0	5.0	5.0 100	20.0	0.0 0.0	0.0	0.0	5.0	5.0 104	5.0 104	5.0 104	5.0 105	5.0 105	5.0 105	5.0 105	'n.	5.0 105	
Ou Score Ma	90 10	90 10	690 10	4.00	1 (1	682 9	82 9	82 9	82 9	682	78.6 8	78.6	o a	*	0.00	18.8	18.8	18.8 7	18.8 7	18.8 7	18.8 7	18.8 7	18.8 7	18.8 7	18.8 7	17.2 7	17.2	7.2 7	7.7.7	7.7.7	7.7.7	7 2 2 7	7.2	17.2 7	17.2 7	17.2 7	17.2 7	17.2 7	7.2 7	17.2 7	17.2	17.2 7	
Result No.	 	7	m •	d+ ∩,	υ	7	œ	σ	10	11	12	-1 -	Ω 	n 4	9 C	81	9 6	20	21	22	23	24	25	26	27	28	50	30	٦ °	200	0 C	י ני	36	37	38	39	40	41	42	43	44	45	

ROD 18-NOV-1997

linear

mRNA

Mus musculus lor-1 gene.
280112.
280112.
280112.
280112.
280112.
280112.
280112.
280112.
280112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
380112.
38011 1180 bp MMLCR12 RESULT 1
MMLCR12
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOUNCE
ORGANISM

REFERENCE AUTHORS TITLE

592 AGCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCTGCCCGGC 421 ATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC [	Qy	Qy 601 GGALGTGACTTCGAGAGCALTGTGCACAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660 [	Qy 661 TTCCACTGTTGCCTGAACCCCATCCTTAT 690 	RESULT 2 BC031665 LOCUS LOCUS DEFINITION Mus musculus chemokine (C-X-C motif) receptor 4, mRNA (cDNA clone MGC:36266 IMAGE:3592479), complete cds.	BC031665.1 GI:21618781 MGC. Mus musculus (house mou	ORGANISM Mus musculus Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. PREFERENCE 1 (hases 1 to 1917)	Diatonenko, L., Marusina, A., Raimer, A.A., Kudin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Chaot, T. F. Brownetsin M. T. Madin T. B. Morbinskin G.	Carning, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J., McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,	worley, A.C., male, b., varcat, A.W., vay, L.O., huly, S.W., villalon, D.K., Mizny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,		TITLE Generation and initial analysis of more than 15,000 full-length human and mouse CDNA sequences JOURNAL Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002) MEDLINE 22388257		JOURNAL Submitted (66-JUN-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA	REMARK NIH-MGC Project URL: http://mgc.nci.nih.gov COMMENT Contect: MGC help desk Email: cgapbs-r@mail.nih.gov Tissue Procurement: Gilbert Smith, Ph.D.	CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Baylor College of Medicine Human Genome
JOURNAL Unpublished REFERENCE 2 (bases 1 to 1180) AUTHORS Lipp,M. TITLE Direct Submission JOURNAL Submitted (11-SEP-1996) Martin Lipp, Max-Delbrueck-Center for Molecular Medicine, MDC, Robert-Roessle-Strasse 10, BERLIN-BUCH,	ਰਾਜ਼ ਜ਼ਿ <b>ਕ</b> = ।	/db_xref="taxon:l0090" /tissue_type="thymus" /dev_stage="adult" gene 11180	/gene="cr-1"  CDS 1.1074 /gene="rcr-1" /function="receptor for chemokine SDF-1" /standard_name="CXC chemokine receptor 4"	/codon_start=1 /product="CXCR-4" /protein_id="raBo2202.1" /db_xref="G1:1542889" /db_xref="G3:1542889" /db_xref="SMISS-PROT:5P0658"	/trānslation="MEPISIYTSDNYSBEVGSGDYDSNKEPCFRDENVHFNRIFLPTI YFFIT FLYGYTONGJVYILYNGYQKKLASYTDKYRALLSVADLEVTTLPFNYTLPPRANDAMDM YFGKFLCKAVHIYTVNLYSSVLILAFISLDRYLAIVHATNGQRPRLLABKAVYGV WIPALLLIIPDFIFADVSGGDISGGDDRYICDRLYPDSLMMVVFQFQHIMVGLILPGI	VILSCYCTIISKLSHSKCHQKRKALKTTVILILAFFA,WLPYYVGISIDSFILLGVIK QGCDFESIVHKWISITEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKIL SKGKRGGHSSVSTESESSSFHSS"	ORIGIN	Query Match Best Local Similarity 100.0%; Score 690; DB 10; Length 1180; Best Local Similarity 100.0%; Pred. No. 7.2e-163; Matches 690; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	OY 1 CIGCACCIGICAGICGCIGACCICCICITIGICALCACACICCCCTICIGGGCAGITGAT 60	Qy 61 GCCANGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTTACACT 120	QY 121 GTGAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTGGC 180  1	QY 181 ATTGTCGACGACCAACGATCAAAGGCCAAGGAAACTGCTGGCTG	QY         241         GTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC         3.00           Db         472         GTGGGCGTCTGGATCCCAGCCTCCTCCTGACTATACCTCAACTTCATCTTTGCCGACGTC         5.31		Qy 361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 420

DD B  RESULT 2 BC031665 LOCUS DBFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS AUTHORS AUTHORS TITLE JOURNAL REPERENCE AUTHORS TITLE JOURNAL	661 TICCACIGITGCCTGAACCCCATCCTTAT 690 	дц	Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. I (bases I to 1817) Strausberg, R.L., Feingold, B.A., Grouse, L.H., Derge, J.G., Klausner, R.L., Ceingold, B.A., Grouse, L.H., Derge, J.G., Klausner, R.L., Seberg, B. B., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Schaefer, T.E., Brownstein, M.J., Usdin, T.B., Casavant, T.L., Scheefer, T.E., Brownstein, M.J., Usdin, T.B., Casavant, T.L., Cheniyuki, S., Chenisii, M. M., Oldin, T.B., Constant, T.L., Cheniyuki, S., Chenisii, M. M., Oldin, T.B., Constant, T.B., Cheniyuki, S., Chenisii, C. M. Cheniyuki, S., Chenisii, C. M. Cheniyuki, S., Cheniyuki, S	Abramson, R.D., Mullahy, S.J., Bosak, S.A., McBwan, P.J., McKernan, R.J., Malek, J.A., Gunaratne, P.H., Richards, S., Morley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalor, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J. W., Green, B.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Schnetrield, Y.S., Krzywinski, M.I., Shalska, U., Smailus, D.E., Schnerch, A., Schein, J.B., Jones, S.J., and Marra, M.A.	Generation and initial analysis of more than 15,000 full-length human and mouse CDNA semences	Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002) 22388257 12477932 2 (bases 1 to 1817) Strausberg,R. Direct Submission Direct Submission Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,	USA WIH-MGC Project URL: http://mgc.nci.nih.gov Contact: MGC help desk Email: cgapbs-r@mail.nih.gov Tissue Procurement: dilbert Smith, Ph.D. CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Baylor College of Medicine Human Genome
		RESULT 2 BC031665 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM	REFERENCE AUTHORS				REMARK COMMENT

```
us-08-36/-032-3.rge
```

#007 TE-PO-OF OF KBT DIT

us-0y-36/-052-3.rge

```
/produce="mutrine cxcr-4"
/produce="mutrine cxcr-4"
/produce="mutrine cxcr-4"
/brotein id="BAA1451.1"
/db xref="d1:1774446"
/translation="mepisvsiytsdnyseevgsgdydsnkepcfrdenvhfnrifle
rtrainforgivdlylwofycknashdpfrxhlisepablievitlepmaydban
DWYFGRELCKAVHIIYTVNLYSSYLILAFISLDRYLAIVHATNSQRPRKLLABRAVY
GVWIPALLITIPDFIFADVSQGDISQGDDRYLCDRLYPDSLWMVVFQFQHIMVGLILD
IVLSCYCTIISKLSHSKGHQKRKALKTTVIILLAFFACWLPYYGTSIDSFTLLGY
IKQCDPESIVHWISTTEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLK
LISKGKROGHSSVFTSESSSFFRS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GIGGGCGICTGGAICCCAGCCCICCICCTGACIAIACCIGACTICAICTIIGCCGACGIC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 716
                                                                                                                                                                                                                                                                                                                                                                    CIGCACCIGICAGIGGCIGACCICCITITATICACACACICCCCTICIGGGCAGITGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                          CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                            GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCATGGCTGACTGCTTTGGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCCAGGGGGACATCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                          o.
                                                                                                                                                                                                                                                                         Query Match 100.0%; Score 690; DB 10; Length 1877; Best Local Similarity 100.0%; Pred. No. 7.3e-163; Matches 690; Conservative 0; Mismatches 0; Indels 0;
120. .1199
/gene="murine CXCR-4"
/function="PBSF/SDF-1 receptor"
/codon_etart=1
/evidence=experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                             Н
                                                                                                                                                                                                                                                                                                                                                                           357
                                                                                                                                                                                                                                                                                                                                                                                                                                           417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       837
                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
CDS
                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \stackrel{\diamond}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

476 180 536

416 120

9

Gaps

420 836 540 600 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGTCTCATCCTGCCCGGC 776 ATCGTCATCCTCTCTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC 480 cada a de contra a contra a contra a contra a contra a contra de contra de contra de contra de contra a contra creccararrarcheeggarcagcarceacrectrearcerretragesagraagcaa 956 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660 ATCGTCATCCTCTCTGTTACTGCATCATCTCTTAAGCTGTCACACTCCAAGGGCCAC AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCTTTTGGGAGTCATCAAGCAA TTCCACTGTTGCCTGAACCCCATCCTCTAT 690 1017 897 601 957 661

> ò d à

ROD 31-OCT-1996

linear

DNA

đq 1422

280113.1 GI:1655638

CX Chemotkine receptor 4; CXCR-4; lcr-1 gene.

Mus musculus (house mouse)

Mus musculus

Entaryote; Netazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus

1 (bases 1 to 1422)

Schubel, A., Burgstahler, R. and Lipp, M.

The mouse homologue of the human HIV coreceptor CXCR-4 (FUSIN):

High expression in thymus and lymphoid tissues Lipp, M.
Direct Submission
Submitted (11-SEP-1996) Martin Lipp, Max-Delbrueck-Center for
Submitted (11-SEP-1996) Martin Lipp, Max-Delbrueck-Center for
Molecular (11-SEP-1996) Martin Lippe, Max-Delbrueck-Center for
Molecular (11-SEP-1996) Martin Lippe, Max-Delbrueck-Center for Max /function="receptor for chemokine SDF-1" "II /db\_xxef="taxon:10090" /clone lib="lambda fix (1 /dv\_stage="adult" <1. .259 /number=1 /organism="Mus musculus" /mol\_type="genomic DNA" /strain="1298V" ςi 260. .>1422 /gene="lcr-1" /product="CXCR-4" /standard\_name="CXC\_c] /number=2 exon Location/Qualifiers musculus lcr-1 gene, /gene="lcr-1" 260. -1 Unpublished 2 (bases 1 to 1422) FEATURES SOURCE intron ACCESSION VERSION KEYWORDS SOURCE ORGANISM JOURNAL REFERENCE AUTHORS TITLE JOURNAL DEFINITION REFERENCE AUTHORS TITLE gene exon ORIGIN

Gaps 1422; ö Length Indels 99.8%; Score 688.4; DB 10; .larity 99.9%; Pred. No. 1.8e-162; Conservative 0; Mismatches 1; al Similarity 689; Conserv Query Match Best Local S: Matches 689

360

596

ö

360 535 GTCAACCICIACAGCAGCGITCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180 655 240 656 ATTGTCCACGCCCAACAGTCAAGGCCAAGGAAACTGCTGGTGGAAAGGCAGTCTAT 715 775 480 116 GIGGGGGTCTGGATCCCACCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC AGCCAGGGGGACATCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT ATCGTCATCCTCTCTCTTACTGCATCATCTTCTAAGCTGTCACACTCCAAGGGCCAC GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 241 GTGGGCGTCTGGATCCCAGCCCTCCTCATATACCTGACTTCATCTTTGCCGACGTC 336 AGCCTGTGGATGGTTGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCGGC CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 361 61 536 121 301 421 q g 셤 음 음 à g à ò ò 엄 à ਨੇ 8

lue may 18 13:54:41 2004

S

Page

```
ð
                                                                      셤
                                                                                                      ઠે
                                                                                                                              원
                                                                                                                                                             රු පු
                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                       Dp
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /codon_start=1
/product=fusin_homolog"
/product=fusin_homolog"
/product=fusin_homolog"
/protein_id="Aab07725.1"
/db_xref="G1.1527135"
/translat.ton="MEPISYSIYTISDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP
TIYFIIFLTGIVGNGLVILWGYQKKLRSMTDKYRLHLSVADLLFVTLFPFWAVDAMA
DWYFGFKLCKANHITYTVNLYSSYLLIAFISLDRYTAHIVHANSQEPRKLIAFRAVYV
GVWIPALLLTIPDFIFADVSQGDISQGDDRYICDRLYPDSLWMVVFQFQHIMVGLILP
GINLGSCYGTISKGBRSKRACHQYRKALKTTVTLILAFFACWLPYTVGISIDSFILLGY
ILSKGCROFESYVHKWISJTEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSIK
ILSKGKRGGHSSVSTESESSSFFHSS"
                                                1135
                                                                                                         1016 CTGCCATATTATGTGGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 1075
                                                                                                                                                                                                                                                                                                                    ROD 30-SEP-2002
                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                              540
                                                                                                                                                   9
896 ATCGTCATCCTCTCTGTTACTGCATCATCTCTTAAGCTGTCACACTCCAAGGGCCAC 955
                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 1223)
                                                                                     541 CIGCCAIATARGIGGGGATCAGCAICGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                  1076 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                         GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 (bases 1 to 1223)
Heesen, M., Berman, M.A., Gerard, C. and Dorf, M.E.
Direct Submission
Submitted (02-JUN-1996) Pathology, Harvard Medical School, 200
Longwood Avenue, Boston, MA 02115, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Heesen, M., Berman, M.A., Benson, J.D., Gerard, C. and Dorf, M.B. Cloning of the mouse fusin gene, homologue to a human HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 99.3%; Score 685.2; DB 10; Length 1223; Best Local Similarity 99.6%; Pred. No. 1.2e-161; Matches 687; Conservative 0; Mismatches 3; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30 7.1109
/note="seven transmembrane spanning receptor;
chemokine-receptor like"
                                                                                                                                                                                                                                                                                                Mus musculus fusin homolog mRNA, complete cds.
US9760
US9760.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J. Immunol. 157 (12), 5455-5460 (1996)
97113334
8955194
                                                                                                                                                                                                                          661 TTCCACTGTTGCCTGAACCCCATCCTCTAT 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Mus musculus"
/mol_type="mRNA"
fstrain="129/Sv"
/db_xref="taxon:10090"
30._1109
                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      co-factor
                                                         926
                                                                                                                                                                                                                                        1136
                           481
                                                                                                                                                  601
                                                                                                                                                                                                                                                                                  RESULT 5
MMUS9760
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOUNCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                   a
                                                                             ò
                                                                                                           d
                    ò
                                                                                                                                      ò
                                                                                                                                                                      유
                                                                                                                                                                                                                                  g
                                                                                                                                                                                                   à
```

267 CTGCACCTGTCAGTGGCTGACCTCCTCTTGTCATCACACTCCCCTTCTGGGCAGTGAT 326 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120

g ò

ò

1 CTGCACCTGTCAGTGGCTGACCTCCTCTTGTCATCACACTCCCCTTCTGGCAGTTGAT

```
ROD 13-DEC-1996
                                                                                                                                                                                                        300
                                                                                            446
                                                                                                                                 240
                                                                                                                                                                                                                                          995
                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                   567 AGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCCCCTTTACCCCGAT 626
                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                     386
                                                                                                                                                                   506
                                                                                                                                                                                                                                                                                                                                                                                          686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCCATCACAGAGGCCCTCGCCTTC 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (house mouse)
Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.
1 (mases 1 to 3366)
Heesen,M., Berman,M.A., Benson,J.D., Gerard,C. and Dorf,M.E.
Cloning of the mouse fusin gene, homologue to a human HIV-1
Co-factor
J. Immunol. 157 (12), 5455-5460 (1996)
                                                                                                                                                                                                                            507 GIGGGCGTCTGGATCCCAGCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGATGTGACTTCGAGAGCATCGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                              387 GTCAACCTCTACAGCGAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                              301 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                              627 AGCCTGTGGATGGTGTTTTCAATTCCAGCATATAAATGGTGGGGTCTCATCCTGCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                             421 AICGICATCCTCTCTGITACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                687 ATCGTCATCCTCTCTGTTACTGCATCATCTCTCCAAGCTGTCACACTTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          807 CTGCCATATTATGTGGGGATCACCATCGACTCCTTCATCCTTTTGGGGGTCATCAAGCAA
                                                         GTCAACCTCTACAGCAGTCTTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                      241 GIGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                        AGCCTGTGGGGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Harvard Medical School, 200
USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MMUGSS80 3366 bp DNA linear Must musculus fusin (CXCR-4) gene, complete cds. U65580.1 GI:1731650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Joses 1 to 3366)
Hesen,M., Berman,M.A., Gerard,C. and Dorf,M.E.
Hesen,M., Berman,M.A., Gerard,C. and Dorf,M.E.
Horst Submissed (30-du-1996) Pathology, Harvard Medical
Longwood Avenue, Boston, MA 02115, USA
Location/Qualifiers
1. 3366
/organism="Mus musculus"
/mol_type="genomic DNA"
/strain="C57BL/64"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCCACTGTTGCCTGAACCCCATCCTCTAT 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8955194
                                                                                                                                                                                                                                                                                                                                                        361
                     327
                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 6
MMU65580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EATURES
```

us-09-367-052-3.rg

```
Proceduri id="CAA67894.1"

(db_xref="G0A; 11666649"

(db_xref="G0A; 11666649"

(db_xref="G0A; 11666649"

(db_xref="G0A; 11666649"

(db_xref="G0A; 11666649"

(db_xref="G0A; 1166684"

(db_xref="G0A; 1166684"

(db_xref="G0A; 1166684"

(db_xref="G0A; 1166684"

(db_xref="G0A; 1166684"

(db_xref="G0A; 1166684"

(db_xref="G0A; 1166844, 1166844, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 116684, 11
                                                                                                                                                                                                                                                                                                                                                                                                                                             MMLESTRPT 1575 bp mRNA linear ROD 11-NOV-1996
M.musculus mRNA for leukocyte-dervied seven transmembrane domain
                                   3064 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGGGTCATCAGCAA 3123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Moepps, B., Frodl, R., Kessler, H. and Gierschik, P.
CODA Clonhing and genomic organization of a leukcoyte-derived seven
transmembrane domain receptor (LESTR) from mouse: a murine
homologue of the human HIV-1 entry cofactor fusin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       seven transmembrane domain receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Moepps, B.
Direct Submission
Submission
Submitted (19-271-1996) B. Moepps, Universitaet Ulm,
Submitted (19-271-1996) B. Moepps, Universitaet Ulm,
Pharmacology/Toxicology, Albert-Einstein Allee 11, D-69081 Ulm,
Revised by author 11-NOV-96
On Nov 12, 1996 this sequence version replaced gi:1657351.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'codon start=1
product="leukocyte-derived seven transmembrane domain
                                                                                                                                                                      3124 GGATGTGACTTCGAGAGCATCGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                   GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1575;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 682; DB 10;
Pred. No. 7.5e-161;
0; Mismatches 5;
                                                                                                                                                                                                                                                                                         Trecaererrecergaacecearecrear 3213
                                                                                                                                                                                                                                   TICCACTGITGCCIGAACCCCAICCICIAT 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /tissue_type="thymus"
/dev_stage="6-8 weeks old"
1. .1575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Mus musculus"
mol_type="mRNA"
forrain="BeCBA"
db_xref="taxon:10090"
/haplotype="diploid"
/sex="female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   X99582.1 GI:1666648
lestr gene; leukocyte-derived
Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 .1575
/gene="lestr"
90 .1169
/gene="lestr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'gene="lestr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished
2 (bases 1 to 1575)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           receptor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 99.3
Matches 685, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       X995<u>8</u>2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         polyA_signal
541
                                                                                                                                                                                                                                                                                             3184
                                                                                                                601
                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                          RESULT 7
MMLESTRPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REMARK
COMMENT
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene
                                                   g
                                                                                                            \delta
                                                                                                                                                                원
                                                                                                                                                                                                                                      કે
                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                /procedi de="AACS2953.1"
/db_xref="G1:3445915"
/db_xref="G1:3445915"
/translat.con="MEDISYSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLDF
/translat.con="MEDISYSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLDF
/translat.con="MEDISYSIYTSDNYSEVGADYDSNAMDAWA
DWYFGKFLCKAVHIIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVV
GVWIPPALLITTPDFFFADVSQGDISGGDDRYTCDRIYFDSLWMVVFGFQHINVGLILDF
GIVLLSCYCTIISKLSHGKGHQKRKALKTTVILLLAFFACWLPYYVGISIDSFILLGV
IKQGCDFESIYHKWGITEALAFFHCCLNPILLYFFACWLPYYVGISIDSFILLGV
ILSKGKRGGHSSVSTESESSSFHSS"

ILSKGKRGGHSSVSTESESSSFHSS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2884 AGCCTGTGGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 2943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2944 ATCGTCATCCTCTCCTGTTACTGCATCATCATCCAAGCTGTCACACTCCAAGGCCCAC 3003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGAT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2524 CTGCACCTGTCAGTGGCTGACTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2584 GCCAIGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 GICAACCICIACAGCAGCGIICICAICCIGGCCIICAICAGCCIGGACCGGIACCICGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2644 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 GTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2764 GIGGGGGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2824 AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 AGCCTGTGGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421 ATCGTCATCCTCTCTCTTACTGCATCATCTCTAAGCTGTCACACACCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181 ATTGTCCACGCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGAAAAGGCAGTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 685.2; DB 10; Length 3366;
Pred. No. 1.2e-161;
0; Mismatches 3; Indels 0;
                                            join(1, .21, 2308, .3366)
gene="CXCR-4"
foote="CXDF-1 chemokine receptor"
foodon start=1
fproduct="fusin"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'note="alternate intron 1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene="CXCR-4"
note="alternate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2308. .3366
/gene="CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene="CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16. .>2307
/gene="CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene="CXCR-4"
                            gene="CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .2307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             number=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /number=2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /number=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 687; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   exon
                                                      CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
```

g

8

8

8 6 8

8 6 à

d

ò В 8 В

8

g

ò

. 0

us-09-367-052-3.rge

```
Location/Qualifiers

1. 1809

(organism="Mus musculus"

(organism="Mus musculus"

(mol type="mRNA"

(dev_train="C57BL-6"

(dev_stage="E17"

(dev_stage="E17"

(dev_stage="E17"

(dev_stage="E17"

(dev_stage="E17"

(dev_stage="E17"

(dev_stage="E17"

(dev_stage="E17"

(dev_stage="E17"

(dev_stage="E18"

(dev_stage="E18"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         369 GCCATGGCTGACTGCTACTTTGGGAAATITTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            549 GIGGGGTCTGGATCCCAGCCCTCCTCCTAACTACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGGGGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCAGGGGACATCAGTCAGGGGGATGACGTACATCTGTGAGGGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGAAGGGGAAGGCCTCAAGACGACAGTCATCCTCATCCTAGCTTTCTTGCCTGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGGGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGATGTGACTTCGAGGATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                           Length 1809;
                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                       Query Match 98.8%; Score 682; DB 10;
Best Local Similarity 99.3%; Pred. No. 7.6e-161;
Matches 685; Conservative 0; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCCACTGTTGCCTGAACCCCATCCTCTAT
Fax:043-284-1736)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                 source
             FEATURES
                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     집
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AB000803

1809 bp mRNA linear ROD 05-FEB-1999

Mouse mRNA for murine CXCR-4, complete eds.

NA AB000803.1

AB000803.1

AB000803.1

Mus musculus (house mouse)

SM Mis musculus (house mouse)

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mus musculus

Eukaryota; Mamalia; Rutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

SM Suzuki,G., Nakata,Y., Uzawa,A., Shirasawa,T., Saito,T. and Mita,K.

Molecular cloning of murine CXCR-4, a murine homologue of HIV entry

co- receptor, that is expressed on leukocyte and other organs

LD Unpublished
                                                                            120
                                                                                                          446
                                                                                                                                           180
                                                                                                                                                                          506
                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                           386
                                                                                                                                                                                                                                         999
                                                                                                                                                                                                                                                                                                         626
                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                         686
                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                        746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          986
             09
                                                                                                                                                                                                                                                                     CTGCACCTGTCAGTGGCTGACCTCCTTTGTCACACTCCCCCTTCTGGGCAGTTGAT
                          CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                       GCCATGGCTGACTGTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATGTACACT
                                                                                            GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                      ATTGTCCACGCCACCACACAGTCAAAGGCCAAGGAAACTGCTGGAAAAGGCAGTCTAT
                                                                                                                                                                                                                              361 AGCCTGTGGATGGTGGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCATTTTGGGGGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Suzuki,G.
Suzuki,G.
Suzuki,G.
Suzuki,G.
Submitssion
Submitted (29-JAN-1997) Gen Suzuki, National Institute of
Radiological Sciences, Division of Radiation Health; 4-9-1,
Anagawa, Inage-ku, Chiba, Chiba 263, Japan
(E-mail:gsuzuki@unmx1.nirs.go.jp, Tel:043-251-2111,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCCACTGTTGCCTGAACCCCATCCTCTAT 690
                                        327
          Н
                                                                                                                                       121
                                                                                                                                                                                                        181
                                                                       61
                                                                                                                                                                       447
                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                      567
                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                      627
                                                                                                                                                                                                                                                                                                                                                                                                                                     687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
AB000803
LOCUS
DEFINITION
ACCESSION
VERSION
VERSION
CETWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                 qq
                                                              B 公 B 公 B 公 B 公
        ò
                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
```

ò.

Gaps

368 120 428 180 488 240 548 300 608 360 668 420 728

60

ö

Gaps , 0

Length 3770; 5; Indels

Db 969 TICCACIGITGCCTGAACCCCTCTAT 998	atc
RESULT 9	; Conservative 0; Mismatches
ρį	·
o manacatus gene encoating feathoryte-delvied seven gonain receptor, strain B6.	7277
	Db 2582 GCCATGGCTGGTACTTTTGGGAAATTTTTGTGTAAGGC
Craniata; Vertebrata; Euteleostomi	
Mammalia; Butheria; Rodentia; Sciurognathi, Muridae; 1	Db 2642 GTCAACCTCTACAGCGGTTCTCATCTGGCCTTCATCAG
AUTHORS Moepps, B., Frodl, R., Kessler, H. and Gierschik, P. TITE ONE cloning and genemic occanisation of a lantoched desired	2y 181 ATTGTCCACGCCACCAACAGTCAAAGGCCAAGGAAACTGCTC
	Db 2702 ATTGTCCACCCACCACAGACAGAGGCCAAGGAAACTGCT
	Qy 241 GTGGGCGTCTGGATCCCAGCCCTCCTCGACTATACCTGA
REPERIOR STITUTOR MOSTAL B	
Direct Submission	70/7
OUGNIAL SUBMILLER (19-010-11996) B. MOEDDS, UILVERSHERET UIL.  Pharmacology/Toxicology, Albert-Finstein Allee 11. D.A9(81 IIIm. PRG	Qy 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTG1
	Db 2822 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTG
	Ov 361 AGCCTGTGGATGGTGGTTTCAATTCCAGCATATAATGGT
JOURNAL Submitted (O.2.ARP-1997) B. Mospps, Universitaet Ulm.  District of the professional Anna State of the Professional A	Db 2882 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGT
_	Qy 421 ATCGTCATCCTCTCTGTTACTGCATCATCATCTAAGCT
ď	
/original and musculus"	7467
/mol_type="genomic DNA"	Qy 481 CAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCT
/ STEALD="186" / Ab xref="raxon-in090"	
/haplotype="diploid"	1
/tissue_type="thymus" /dev_stage="6-8_weeks_old"	Qy 541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTT
exon (1. 110	Db 3062 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTC
	103
JOIN 300: .110, 2308: .	Zy 60A GGATGTGACTTCGAGGCATTGTGCACAAGTGGAATCTCCATC
CDS join(90110,23063364)	Db 3122 GGATGTGACTTCGAGAGCATCGTGCACAAGTGGATCTCCATC
	Qy 661 TTCCACTGTTGCCTGAACCCCATCCTCTAT 690
/product="leukocyte-derived seven transmembrane domain receptor"	
/protein_id="CAA67893.1"	*** ***********************************
/db_xref="d1:16664" /db_xref="GOs.P7658"	OF F. H. SER
/db_xref="SWISS-PROT:P70658"	
/translation="MEPISVSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFUP TIYPIIFLTGIVGNGLVIIVMGYOKKIRSNTDKYRIHISVADILFVTTIPPRA	2
DWYFGKFLCKAVHIYTVNLYSSVILLAFISLDRYLAIVHATNSORIATAAYTV	PROGRESS ***, 39 unordered piec
GVWIPALLLTIPDFIFADVSQGDISQGDDRYICDRLYPDSLMMVVPQPQHIMVGLVLP GTVTLSCYCTITSRTSHSRGHORPXALKTTLILAPPACWILYVVALTITICA	ACCESSION AC145861
IKQCDFESIVHKWISITEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLK 11 GKGKPAGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	XEYOLOS HTG: HTG: HTG: HTG: HTG: HTG: HTG: HTG:
200000000000000000000000000000000000000	ran troglodytes (cnimpanzee) NISM Pan troglodytes
/gene="lestr" /note="splice variant/intron"	Eukaryota, Metazoa, Chordata, Craniata, Vert Mammalia, Rutheria, Drimates, Catarrhini, Ho
	REFERENCE 1 (Dases 1 to 175370)
exon 2306>3770 /number=2	
polyA_signal 36933698	RS Wilson, R.K.
OKIGIN	TITLE Direct Submission

```
AC145861
Pan troglodytes chromosome UNK clone RP43-21D9, *** SEQUENCING IN PROGRESS ***, 39 unordered pieces.
AC145861.
AC145861.1 GI:33386791
HTG; HTGS PPASE1.
Pan troglodytes (chimpanzee)
Pan troglodytes (chimpanzee)
Bukaryota, Metazoa; Chordata, Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
I (bases 1 to 175370)
Wilson,R.K.
                                                                                                      2641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3061
                                                                                                                                                                             2701
                                                                                                                                                                                                                                                  2761
                                                                                                                                                                                                                                                                                                                         2821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2581
                                                                                                                                                                                                                                                                                                                                                                                               2881
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2882 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTTCGGTCTCGTCCTGCCCGGC 2941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3062 CTGCCATAITATGTGGGGGATCAGCATCGACCCTTCATCCTTTTGGGGGTCATCAGGAG 3121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3122 GGATGTGACTTCGAGAGCATCGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 3181
                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                     120
                                                                                                                                            180
                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                   2822 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACACCCCCCGGTTAACCCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2522 CTGCACCTGTCAGTGGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                 61 GCCATGGCTGGCTGGTACTTTGGGAAATTTTGTGTAAGGCTGTCCATALCATCTACGCT
                                                                                      2582 GCCATGGCTGGTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATGTACACT
                                                                                                                                          121 GICAACCICIACAGCAGCGIICICAICCIGGCCIICAICAGCCIGGACCGGIACCICGCC
                                                                                                                                                                 2642 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCT
                                                                                                                                                                                                                                     301 AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541 CTGCCATATTATGTGGGGATCAGCATCGACTTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCCATCACAGAGGCCCTCGCCTTC
1 CTGCACCTGTCAGTGGCTGACCTCTTTGTCATCACCACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                 361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3182 TTCCACTGTTGCCTGAACCCCCATCCTCTAT 3211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The sequence of Pan troglodytes clone Unpublished 2 (Dases I to 175370) Wilson, R.K. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Trccacrerrecordaaccccarccrar 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SSULT 10
1145861
OCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCESSION
ERSION
EYWORDS
)URCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FERENCE
AUTHORS
TITLE
JOURNAL
FERENCE
AUTHORS
```

Submit Forest	ted (01 Park 1	Submitted (01-AUG-2003) Forest Park Parkway, St.	03) St	Genetics, Ge Louis, MO	Genome Sequencing Center, 4444 ) 63108, USA	
Center	washi code:	ington U	Genome Cer Universit	Center sity Genome	Sequencing Center	
Web site Contact:	te:htt	p://geno nissions Proje	me.wust. @watson ct Info	<pre>ib site:http://genome.wustl.edu nntact: submissions@watson.wustl.edu</pre>	a	-
* NOTE	This	is a 'w	working o	iraft,	Tuence.	
* cons	ists of	* consists of 39 contigs. The is not known and their ord	tigs. Their ord	he true der in	of the pieces sequence record	
* arbi * runs	trary.	Gaps be	tween the	ne cont	is are represented as the gaps are unknown.	
* This	soon as	it is a	e update	record will be updated with the four as it is available and the acc	inish	
be p	preserve	ed. 15		1		
	1 5346	5445:	contig gap of	or 5345 unknown	bp in length length	
* 1	5446	17195:	contig	of 1175	bp in length	
데 * *	7296	33250:	H D	unknown I of 15955	length 5 bp in length	FEATURES
* *	13251	33350:	gap of	unknown length	length br in length	nos
* +	5647	45746:	nu-	unknown 1	length	
* *	1993	61992:	mч	of 1624(	. bp in length length	
* +	2093	63423:	contig	of 1331	bp in length	
* *	3524	64666:	gap or	unknown of 1143	lengtn bp in length	<b>d</b> ≝
* *	34667	64766:	gap of	unknowr	l length	mis
. *	5995	65994:	contig qap of	unknowr	bp in lengtn length	mis
* *	56095	67430:	contig	of 1336	bp in length	
· *	7531	68982:	gap or	of 1452	ıengin bp in length	<b>1</b>
* *	58983	69082:	gap of	unknown	length bp in length	ain .
*	70892	70991:	gap of	unknown	length	mis
* *	0992 2173	72172:	contig gap of	of 1181 unknown	bp in length length	mis
* *	72273	73614:	contig	of 1342	bp in length	
. *	3715	75185:	gap or contig	of 1471	ıengin bp in length	<b>1</b>
* *	75186 5286	75285:	gap of	unknown of 1569	length bp in length	<u></u>
* .	6855	76954:	gap of	unknown	length	m
* *	6955 8414	78413:	contig gap of	ot 1459 unknown	bp in length	-tm
* *	18514 19965	79964:	contig	of 1451	bp in length length	· E
*	00065	81745:	contig	of 1681	bp in length	
* *	11746	81845:	gap or contig	unknown of 1572	lengtn bp in length	<b>ተ</b>
æ æ * *	13418 13518		gap of	unknown	length hair length	im
*	34911		gap of	unknown	length	
a) a) * *	35011 16789		contig gap of	of 1778 unknown	bp in length length	
* *	36889		contig	of 2004	bp in length	Ē
*	8893	90670:	contig	of 1678	bp in length	-
* *	90671	90770:	gap of	unknown of 2437	l length bo in length	TE .
* *	93208	93307:	gap of	unknown	l length	i m
1010	96659	96758:	gap of	ENOU:	Jength	Ė
* *	96759 10577	100576:	contig gap of	of 3818 unknown	bp in length length	- FIE
22 * *	0677	104988:	contig gap of	of 4312 unknown	bp in length length	
i		,			::)n::)1	-

Qy         168678         CAGAAGCGCAAGGCCTCAAGACGACAGTCATCCTAACCTTTTTTTT	AC14756  Mus musculus chromosome UNK clone RP23-480N14, WORKING DRAFT SEQUENCE, 11 unordered pieces.  AC14756.  AC14756.  GRISSONS MASSEL, HTGS_DRAFT, HTGS_FULLTOP.  Mus musculus  Rustryota, Motazoa, Chordata, Craniata, Vertebrata, Buteleosto Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Wilson, R.K.  The sequence of Mus musculus clone Unpublished  2 (Dases 1 to 185215)  Wilson, R.K.  Direct Submission	JOURNAL Submitted (17-DEC-2003) Genome Sequencing Center, 4444 Forest Fark COMMENT	Consensus quality: 194611 bases at least Q40 Consensus quality: 196848 bases at least Q30 Consensus quality: 196848 bases at least Q30 Consensus quality: 196848 bases at least Q30 Consensus quality: 196349 bases at least Q30 Consensus quality: 198294 bases at least Q20 Insert size: 252319; sum-of-contigs Quality coverage: 13.47 in Q20 bases; sum-of-contigs Quality coverage: 9.68 in Q20 bases; sum-of-contigs ** NOTE: This is a "working draft' sequence: It currently ** consists of 11 contigs. The true order of the pieces ** is not known and their order in this sequence record is ** arbitrary. Gaps between the contigs are represented as ** runs of N, but the exact sizes of the gaps are unknown. ** This record will be updated with the finished sequence ** as soon as it is available and the accession number will ** be preserved.  ** 1120 1119; contig of 1119 bp in length ** 1220 2637; contig of 1418 bp in length
misc_feature 899390670 misc_feature 8071 .93207 misc_feature 90771 .93207 misc_feature 93308 .96658 misc_feature 700550 .100576 misc_feature 100579 .100576 misc_feature 100677 misc_feature 100677 misc_feature 100677 misc_feature 100678 misc_feature 100679 misc_feature 100679 misc_feature 10893 misc_feature 10894 misc_feature 10893 misc_feature 10893 misc_feature 10894 misc_feature 10894 misc_feature 10894 misc_feature 10893 misc_feature 10893 misc_feature 10893 misc_feature 10893 misc_feature 10893 misc_feature 10893 misc_feature 10899 misc_feature 10893 misc_feature 10894 misc_feature 10894 misc_feature 10894 misc_feature 10894 misc_feature 10898 misc_featu	ture ture ture ture ture	Query Match         98.9%;         Score 682;         DB 2;         Length 175370;           Best Local Similarity         99.3%;         Pred. No. 9e-161;         Accessory         Accessory           Matches 685;         Conservative 0;         Mismatches 5;         Indels 0;         Gaps 0;           Qy         CTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACCTCCTTTGGGCAGTTGAT 168257         CTGCACCTGTCAGTGGCTGACTTGGGAAATTTTTGTGTAAGGCTGCCTTTTGTGTAAGGCTGTCCATTTAGTTAACACTTAGGGAAATTTTTGTGTAAGGCTGTCCATATCATCACCTTACACT 168317           Qy         61         GCCATGGCTGACTGGTAACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCACCTCACCT 168317           Qy         121         GTCAACCTCTAACAGGAGCTTTCTCAATCACCTGGCTTCAATCACTCAC	181 168378 168438 168498 168498 168558

```
91716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  91777 GTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 91836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             91656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 GIGGGCGICTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91657 GTCBACTCTACAGCAGCGTTCTCATCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  91597 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CTGCACCTGTCAGTGGCTGACCTCTTTGTCATCACACTCCCCTTCTGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 GCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 98.8%; Score 682; DB 2; Length 185215;
Best Local Similarity 99.3%; Pred. No. 9e-161;
Matches 685; Conservative 0; Mismatches 5; Indels 0; Gaps
/1220...2637
/note="assembly_name:Contig103"
2738...5059
/note="assembly_name:Contig122"
5160...6203
/note="assembly_name:Contig122"
                                                                                                                                                                                                                                                                                                                          6304. .11814
/note="assembly_name:Contig126"
                                                                                                                                                                                                                                                                                                                                                                                 /note="assembly_name:Contigl30"
                                                                                                                                                                                                                                                                                                                                                                                                                        122386. .185215<sup>--</sup>
/note="assembly_name:Contig132"
                                                                                                                                                                                                                              (. .1119
/note="assembly_name:Contig51"
   2038
5060
5160
66204
66204
1181915
118554
118554
128655
128652
123886
                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGAT 360

g &

REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL CIGCACCIGICCGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTGGAC 282 GCCATGGCTGACTGGTACTTTGGGAAATTTTTATGTAAGGCTGTGCATATCATCTACACC 342 GTGGGTGTTTGGTCCCCGCCCTCCTCGACTATCCCTGACATCTTCGCCGATGTC 522 601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660
808 GGATGTGAGTTCGAGAGCGTCGTGCACAAGTGGATCTCCATCACGGAGGCCCTCGCCTTC 867 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120 GICAACCICTACAGCAGCGITCICATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180 GTCAACCTTTACAGCAGTGTTCTCATCCTGGCCTTCATCAGCCTGGACCGTACCTTGCC 402 ATTGTCCACGCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGAAAAAGGCAGTCTAT 240 403 ATTGTCCACGCCACCAACAGCCAGAGGAGGAGGAAGGTGCTGGTGAAAAGGCCGTCTAT 462 AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360 523 AGCCAGGGGAC------GGCAGGTACATCTGTGACCGCCTTTACCCCGAC 567 361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCGGC 420 568 AGCCTGTGGATGGTGGTGTTCCAGTTCCAGCACATCATGGTGGTCTCATCCTGCCGGGC 627 541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 600 748 CTACCGTATTACGTGGGGATCAGCATCGATTCCTTCATCCTTTTGGAGGTCATCAAGCAA 807 Greecercrecarcecarcerrecrearantarecreactreatringecearer 300 ATCGTCATCCTCTGCTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCCAC 480 9 ä CTGCACCTGTCAGTGGCTGACCTCCTCTTGTCATCACACTCCCCTTCTGGGCAGTTGAT Query Match 83.9%; Score 578.6; DB 10; Length 1050; Best Local Similarity 91.4%; Pred. No. 8e-135; Matches 630; Conservative 0; Mismatches 44; Indels 15; Gaps 429. .430 /gene="Cxcr4" /note="compared to Wistar strain sequence presented GenBank Accession Number U90610" /replace="cg" TTCCACTGTTGCCTGAACCCCATCCTCTA 896 TICCACTGTTGCCTGAACCCCATCCTCTA 689 variation 283 343 223 61 121 181 241 463 301 421 481 199 ORIGIN g ò д δ d ò 셤 ò g ò g S g ò g 9 9  $\stackrel{>}{\circ}$ 엄 ò a ò

ncizzuw/
Rattus norvegicus clone CH230-108A24, WORKING DRAFT SEQUENCE, 4
unordered pieces. RESULT 13 AC122097 LOCUS DEFINITION VERSION KEYWORDS SOURCE ORGANISM ACCESSION

AC122097.4 GI:25008263 HTG; HTGS\_PHASE1; HTGS\_DRAFT; HTGS\_FULLTOP. Rattus norvegicus (Norway rat) Rattus norvegicus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Allan, C., Allen, H., Alebrooks, Abramazon, S., Adams, C., Alder, J., Aldans, C., Allen, H., Alebrooks, S., Amin. A., Angulano, D., Anjadelechi, V., Alen, H., Alebrooks, S., Amin. A., Angulano, D., Anjadelechi, V., Bandaranaike, D., Barber, W., Barneredi, Y., Bandaranaike, D., Barber, W., Barneredi, Y., Barderon, E., Cardens, Y., Carter, Y., Carder, Y., Chen, C., Burch, P., Burch, Y., Elson, M., Delagdo, O., Charger, C., Barv, Carc, Chen, K., Chen, Y., Chen, Y., Cardens, Y., Carter, Y., Chen, C., Dav, Carc, C., Coyle, W., Cree, A., D'Souzai, D., Davia, M., Davia, C., Dav, Cartol, L., De Andac, C., Deder, C., Dav, Cartol, M., Davia, C., Dav, Cartol, M., Chen, G., Dav, Cartol, M., Davia, C., Dav, Cartol, M., Davia, C., Dav, Cartol, M., Chen, G., Dav, Cartol, M., Chen, G., Dav, Cartol, M., Davia, C., Dav, Cartol, M., Davia, C., Dav, Cartol, M., Chen, G., Dav, Cartol, M., Davia, C., Dav, Cartol, M., Davia, D., Davia, M., Davia, M., Davia, D., Davia, M., Davi

Direct Submission

Lutect burnalston

Submitted (12-MX-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

Baylor Plaza, Fouston, TX 77030, USA

Sat Genome Sequencing Consortium.

Direct Submission

Norect Submission

Norect Submission

Nov 15, 2002 this sequence, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Nov 15, 2002 this sequence version replaced gi:23269619.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.ngsc.bcm.tmc.edu/projects/rab. Each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence may extend beyond the ends of the clone and there may be sequence

COMMENT

Tue May 18 13:54:41 2004

දු දු contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature table.

Center: Baylor College of Medicine
Center code: BCM
Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu

NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.unc.edu/docs/Genbank draft\_data.html).
NOTE: This is a 'working draft' sequence. It currently consists of 4 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.

40067: contig of 40067 bp in length 40068 40167: gap of unknown length 40168 114660: contig of 74493 bp in length 11461 114761 gap of unknown length 114761 188186: contig of 73426 bp in length 188187 189188; gap of unknown length 188287 190149: contig of 1863 bp in length. Location/Qualifiers

source FEATURES

/organism="Rattus norvegicus" /mol type="genomic DNA" /db\_xref="taxon:10116" /clone="CH230-108A24" ORIGIN

20878 CIGCACCIGICCGIGGCIGACTCCTCTITGICATCACACTCCCCTTCTGGGCAGTGGAC 20937 GCCATGGCTGACTGGGTACTTTGGGTAAGGCTGTCCATATCATCTACACT 120 1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT 60 61 임  $\stackrel{>}{\circ}$ 

Query Match 83.9%; Score 578.6; DB 2; Length 190149; Best Local Similarity 91.4%; Pred. No. 9.7e-135; Matches 630; Conservative 0; Mismatches 44; Indels 15; Gaps

B  $\stackrel{\sim}{\circ}$ 

g &

g දු දු ò

240 181

AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 301

21403 CTACCGTATTACGTGGGGGATCAGCATTCGTTCTTTTTTTGGAGGTCATCAAGCAA 21462 21463 GGATGTGGGTTCGAGAGCGTCGTGGTGGAGAGTGGATCTCCATCACGGAGGCCCTCGCCTTC 21522 21223 AGCCTGTGGGGTGTTGCAGTTCCAGCACATCATGGTGGGTCTCATCCTGCCGGGC 21282 480 601 GGAŢGŢGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 600 421 ATCGTCATCCTCTCTCTGTTACTGCATCATCTTCTAAGCTGTCACACTCCAAGGGCCAC 361 541 8 8 ò d ઠ g 5 g  $\overset{\sim}{\circ}$ 

RESULT 14 AC107097/c LOCUS DEFINITION

AC107097 240931 bp DNA linear HTG 13-MAY-2003 Rattus norvegicus clone CH230-175010, \*\*\* SEQUENCING IN PROGRESS

ACCESSION VERSION KEYWORDS SOURCE ORGANISM

AC107097, 5 GI:30580624 HTG: HTGS PHASE2; HTGS\_DRAFT; HTGS\_ENRICHED. Rattus norvegicus (Norway rat) Rattus norvegicus (Norway rat) Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae;

REFERENCE AUTHORS

Rattus.

1 (Dases I to 24091)

Rattus.

1 (Dases I to 24091)

Rattus.

Anyalebechi, V., Acyagi, A., Ayodeji, M., Bara, E., Baden, H.,

Anyalebechi, V., Acyagi, A., Ayodeji, M., Barnstead, M., Benahmed, F.,

Blawalo, K., Blait, J., Blankenburg, K., Blyth, P., Brown, M.,

Banduin, D., Bandaranaike, D., Barber, M., Barnstead, M., Benahmed, F.,

Blawalo, K., Blait, J., Blankenburg, K., Blyth, P., Brown, M.,

Bryant, M., Buhay, C., Burch, P., Burrell, K., Calderon, E.,

Cardenas, V., Cavazo, I., Ceasar, H., Center, A.,

Cardenas, V., Cavazo, C., Coyle, M., Cene, Z.,

Claveland, C., Cockrell, R., Cox, C., Coyle, M., Chen, Z.,

Claveland, C., Cockrell, R., Cox, C., Coyle, M., Chen, Z.,

Davila, M. L., Davis, C., Davy-Carroll, L., De Anda, C., Disuya, K.,

Draper, H., Dugan-Rockha, S., Dunn, A., Durbin, K., Duvalla, B., Baves, K.,

Egan, A., Escotto, M., Eusene, C., Evrbes, L., Foster, P.,

Fernandez, S., Finley, M., Flagg, N., Forbes, L., Foster, M., Gabisi, A., Gancia, A., Garcia, A., Garcia, A.,

Gabescorgis, E., Geer, K., Gall, R., Grady, M., Guerra, W., Guevara, W.,

Harvey, Y., Havlak, P., Hawes, A., Henderson, N., Hernandez, J.,

Harnaten, P., Haaland, W., Hamil, C., Hamilton, K., Wall, C., Labow, R.,

Harnata, Jack, P., Hawes, A., Haddun, S., King, L., Kovar, C.,

Kows, C., Karfe, C.L., Lebow, R., Lebow, R., Longacre, S., Lopez, J.,

Liu, J., Liu, W., Mahindartne, W., Martin, R., Martin, R., Martin, S., Mayan, M., Mangum, B., Mayul, W., Minja, E., Markin, K., Martin, K., Markin, K., Martin, K., Marken, Mandum, P., Martin, K., Pall, K., Pall, K., Pall, K., Pall, H., Perez, A., Perez, L., Peners, A., Peners, K., Pall, K., Pe

```
Direct Submission

Submitted (16-JAN-2002) Human Genome Sequencing Center, Department of Molecular and Human, TX 77030, USA

Submitted (16-JAN-2002) Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

Sta Genome Sequencing Consortium.

Direct Submission

Submitted (13-MAY-2003) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On May 13, 2003 this sequence version replaced gi:23115278.

The Sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.ed/projects/rat/). Each contig described in the fature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold'). Mithin each contig-scaffold') midividual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence may extend beyond the ends of the clone and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence contigs will be indicated in the feature table.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         **NOTE: Essimated insert size may differ from sequence length

**NOTE: This is a "working draft" sequence. It currently

**NOTE: This is a "working draft" sequence. It currently

**consists of 1 contigs. Gaps between the contists

* are represented as runs of N. The order of the pieces

* is believed to be correct as given, however the sizes

* of the gaps between them are based on estimates that have

* provided by the submittor.

* This sequence will be replaced

* by the finished sequence as soon as it is available and

* the accession number will be preserved.

* Location/Qualifiers
Puazo, M., Quiroz, J., Rachlin, E., Reeves, K., Regier, M.A., Reigh, R., Reilly, M., Ren, Y., Reuter, M., Richards, S., Riggs, F., Rives, C., Rodkey, T., Rojas, A., Rose, M., Rose, R., Ruiz, S. J., Riggs, F., Sanders, W., Savery, G., Scherer, S., Scott, G., Shatsman, S., Shen, H., Sheet, Y. J., Shavatsbeyn, A., Sisson, I., Sitter, C.D., Smajs, D., Sneed, A., Scdergren, E., Sutton, A., Susson, I., Stelenle, M., Strong, R., Sutton, A., Svatek, A., Tabor, P., Taylor, C., Taylor, T., Thomas, N., Thomas, S., Tingey, A., Trejos, Z., Usmani, K., Valas, R., Vera, V., Villacana, D., Waldron, L., Walker, B., Wang, J., Walght, D., Wallson, R., Wleren, R., Wei, X., White, F., Waight, D., Wright, R., Wu, Y., Yakub, S., Yen, J., Yoon, U., Yon, V., Yu, F., Zhang, J., Zhou, J., Zhou, X., Zhao, S., Dunn, D., von Niederhausern, A., Weise, R., Smith, D.R., Holt, R.A., Smith, H.O., Weinetcock, G. and Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center: Baylor College of Medicine
Center: Capture College of Medicine
Center code: BCM
Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
Contact: project Information
Center project name: CH230-175010
Center clone name: CH230-175010
Center clone name: CH230-175010
Center clone name: CH230-175010
Center clone name: 21230-175010
Consensus quality: 219254 bases at least Q30
Consensus quality: 219254 bases at least Q30
Consensus quality: 21224 bases at least Q30
Consensus quality: 221224 bases at least Q30
Consensus quality: 22020 bases; sum-of-contigs estimation
Quality coverage: 6x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
2 (bases 1 to 240931)
Worley, K.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
```

/organism="Rattus norvegicus"

FEATURES

```
237401 CTGCACCTGTCCGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTGGAC 237342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        237341 GCCATGCCTGACTGGTACTTTTGGTAAGGTGTGTAGGCTGTGCATATCATACACC 237282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      237102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         236936 chdahdccccaadcccccccaadacracdcarccrrarccroccrocriticririccriticcric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       237161 GTGGGTGTCTGGAFCCCCGCCCTCCTCCTGACTATCCCTGACATCATCTTCGCCGATGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTACCGTATTACGTGGGGATCAGCATCGATTCCTTCATCCTTTTGGAGGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 GTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421 ATCGTCATCCTCTCTGTTACTGCATCATCTTCTAAGCTGTCACACTCCAAGGGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGAAGCCCAAAGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTTTGCCTGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTTCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                          1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCCAGGGGGCACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CIGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                            15; Gaps
                                                                                                                                                                                                                                                                                                                                               Length 240931;
                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                               Query Match 83.9%; Score 578.6; DB 2; Best Local Similarity 91.4%; Pred. No. 9.8e-135; Matches 630; Conservative 0; Mismatches 44;
                                      1. .1249
/note="wgs end_extension
clone=ndisp6"
complement (516". .5587)
/note="clone boundary
clone end:sp6
end:sp6
end:sp6
end:sp6
complement (23579. .233220)
/note="clone_boundary
clone=nclone_boundary
site:EcoRl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TICCACTGIIGCCIGAACCCCAICCICIA 689
                                                                                                                                                                                                                 end_sequence:BH357330"
235468. .237558
/note="wgs_end_extension
clone_end:T7"
                                                                                                                                                                                                                                                                       239450. 240931
/note="wgs end_extension
clone end:T7"
/mol_type="genomic DNA'
/db_xref="taxon:10116"
/clone="CH230-175010"
                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                misc_feature
                                                                                      misc_feature
                                                                                                                                                                                                                                                                           misc_feature
                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 236876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          236816
                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
장 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

463 GTGGGTGTCTGGATCCCCGCCCTCCTCCTGACTATCCCTGACATCATCTTTCGCCGATGTC 522

523 AGCCAGGGGGAC-------GCCAGGTACATCTGTGTGACGCCTTTACCCCGAC 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT

셤

8

g ò g

ò

361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 568 AGCCIGIGGAIGGIGGIGCITCCAGITCCAGCACAICAIGGIGGGICICAICCIGCGGGC 421 ATCGTCATCCTCTCCTGTTACTGCATCATCTCTTAAGCTGTCACACTCCAAGGGCCAC 628 ATCGTCATCCTGTCCTGTTACTGCATCATCATCTCCAAGCTGTCACACACCCAAGGGCCAC 541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 748 CTACCGTATTACGTGGGGATCAGCATCGATTCCTTCATCCTTTTGGAGGTCATCAAGCAA 601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTTCGCTTC 808 gcarcicacincaacaccinconcacacanciacancicancacacacaccinc

THE WEY TO TO THEFT TOOM

RNU90610 1050 bp mRNA linear ROD 26-MAR-1997 Rattus norvegicus CXC chemokine receptor (CXCR4) mRNA, complete Unpublished

(base)

(base)

Harrison,J.K. and Salafranca,M.N.

Direct Submission
Submitted (25-FEB-1997) Pharmacology and Therapeutics, University of Florida, 1600 SW Archer Rd., Gainesville, FL 32610-0267, USA Rattus norvegicus (Norway rat) Sattus norvegicus (Stratus norvegicus) Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; 1. 1050
/organism="Rattus norvegicus"
/mol\_type="mxNa"
/strain="Mistar"
/db\_xref="taxon:10116"
/tiseue\_type="apleen"
1. 1050
/gene="CXCR4" 1 (bases 1 to 1050) Harrison, J.K. and Salafranca, M.N. Molecular cloning of rat CXCR4 Unpublished U90610 U90610.1 GI:1906612 ACCESSION VERSION KEYWORDS SOURCE ORGANISM RESULT 15 RNU90610 LOCUS DEFINITION REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL FEATURES g

480

687

627

567

747 600

540

481

à

g

ઠે g ઠે 셤

867

9

807

Search completed: May 17, 2004, 12:10:45 Job time : 2796.11 secs

1. 1050
| gene="CACR4" |
| journal |

gene CDS 1

CTGCACCTGTCGTGGCTGGCTCCTCTTTGTCACACACTCCCCTTCTGGGGCAGTGGAC 282 61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120 GCCATGGCTGACTGGTACTTTGGGAAATTTTTATGTAAGGCTGTGCATATCATCACAC 342

CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT

83.4%; Score 575.4; DB 10; Length 1050; larity 91.1%; Pred. No. 5.1e-134; Conservative 0; Mismatches 46; Indels 15; Gaps

Query Match Best Local Similarity Matches 628; Conserv

ORIGIN

343 GTCAACCTTTACAGGAGTGTTCTCATCCTGGCCTTCATCAGCCTGGACCGCTACCTTGCC 402 ATTGTCCACGCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGAAAAAGGCAGTCTAT 240 

GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCAGCCTGGACCGGTACCTCGCC 180

283 121

δ d 8 8

셤

181

8

g

241

GTGGGCGTCTGGATCCCAGCCCTCCTCACTATACCTGACTTCATCTTTGCCGACGTC 300

TICCACTGITGCCTGAACCCCATCCTCTA 689 868 TICCACIGITIGCCIGAACCCCAICCICIA 896

# GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

using sw model - nucleic search, OM nucleic

. .

Run

May 17, 2004, 03:46:58 ; Search time 295.894 Seconds (without alignments) 9906.453 Million cell updates/sec

US-09-367-052-3 690 Title: Perfect score:

Sequence:

IDENTITY NUC Gapop 10.0 , Gapext 1.0 Scoring table:

1 ctgcacctgtcagtggctga......gcctgaaccccatcctat 690

Total number of

Searched:

hits satisfying chosen parameters: 3373863 segs, 2124099041 residues

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

geneseqn2001as:\* geneseqn2001bs:\* geneseqn2003bs:\* N\_Geneseq\_29Jan04:\* 1: geneseqn1980s:\* geneseqn2003as:\* geneseqn1980s:\* geneseqn1990s:\* geneseqn2002s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

geneseqn2004s:\* geneseqn2003cs:

...

## SUMMARIES

	Aaz27611 Mouse CXC	Aav46370 Nucleic a	Adb58421 Toxicity-	Adb53005 Primary r	Aaz38553 Human CXC	Abq74938 Human CXC	Aah99952 CXCR4 enc	Acc72707 Human can	Abz35630 Human gen	Aca56637 Human sig		Aaa91726 Human 7TM	Abk54255 Human 7 t	Abs64793 CXCR4 rec	Aaz27610 Human CXC	Aaa61656 Human CXC	Aaz40014 CXCR4 cod	Abk83803 Human cDN	Abn95645 Gene #214	Acc46765 Human COP	Aad12801 Human neu	Aai65467 Nucleotid	Abs53992 DNA encod
	AAZ27611	AAV46370	ADB58421	ADB53005	AAZ38553	ABQ74938	AAH99952	ACC72707	ABZ35630	ACA56637	AAV18357	AAA91726	ABK54255	ABS64793	AAZ27610	AAA61656	AAZ40014	ABK83803	ABN95645	ACC46765	AAD12801	AAI65467	ABS53992
DB	~	N	σ	6	ო	9	9	7	9	7	N	m	9	y	~	m	ო	9	9	۲-	4	4	9
* Query Match Length	1758	1877	1050	1050	05	1059	9	1059	1225	1225	1317	1317	1317	1582	1588	1664	1664	1670	1670	1670	67	1679	67
% Query Match	100.0	100.0	83.4	83.4	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	ď.	75.0	75.0	75.0
Score	069	069	575.4	575.4	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	17	517.2	517.2	517.2	517.2	517.2
Result No.	! ~! !	N	m	4	S	9	7	8	თ	10	11	12	13	14	15	16	17	18	19	20	21	22	23

Abs53750 DNA encod		Abx08779 Angiogene		Abz68886 Nucleotid	Abz42642 Human CXC	Adc98645 Human CXC	Abz35348 Human gen	Adb47320 Human cDN	Aag80521 Human mon	Aaq99007 Chemokine	Aax15882 cDNA enco	Aaa34774 Human ade		Aah99951 CXCR4 gen	Abz96590 Human CCR	Aca64841 Human CXC	Aca64750 Chemokine	Aaq66179 Seven tra	48 Hum	3506 New	Abi97982 Non-endog
ABS53750	ABV78039	ABX08779	ABX74454	AB268886	ABZ42642	ADC98645	ABZ35348	ADB47320	AAQ80521	AAQ99007	AAX15882	AAA34774	AAF20896	AAH99951	ABZ96590	ACA64841	ACA64750	AAQ66179	ADD67548	AAQ29506	AB197982
1679 6		619		619	619		711	711	737	1737 2	944	161	191	161		161		317	747		
75.0	ľ,	'n	ın.	ľ.	75.0	'n	75.0	'n.	'n.	75.0	'n.	'n.	'n	'n	75.0	'n	4.	4.	74.7	4.	•
17.	17.	17.	17.	17.	17.	17.	17.	17.	17.	517.2	17.	517.2	17.	17.	17.	517.2	515.6	15.	515.6	ы	512.4
24	25	26	27	28	29	30	31	32	33	34	32	36	37	38	39	40	41	42	43	44	45

#### ALIGNMENTS

AA227611 standard; DNA; 1758 BP. AAZ27611

AAZ27611;

(first entry) 16-DEC-1999

coding sequence Mouse CXCR4 CXCR4, mouse, neovascularisation, inhibitor, solid cancer, therapy, tissue repairing agent, vascularisation, ss.

Mus

WO9948528-A1

30-SEP-1999

98JP-00095448. 23-MAR-1999;

24-MAR-1998;

(CHUS ) CHUGAI SEIYAKU KK. (KISH/) KISHIMOTO T.

Tachibana K;

Kishimoto T, Nagasawa T,

WPI; 1999-591042/50. P-PSDB; AAY39994.

CXCR4-potentiating agents and methods useful for inhibiting neovascularization, and treating solid cancers.

Disclosure; Page 50-51; 63pp; Japanese.

This sequence encodes the mouse CXCR4 protein. The invention relates to remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases parhologically caused by neovascularisation and tissue repairing agents containing at a cutive ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockout mouse, it becomes possible to prepare infemedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a 

```
ô
                                                                                                                                                                                                           180
                                                                                                                                                          120
                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                   297
                                                                                                                                                                                  357
                                                                                                                                                                                                                                  417
                                                                                                                                                                                                                                                                                 477
                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                 537
                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                 597
                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                657
                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCCATATTATGTGGGGATCAGCATCGACCTCCTTCATCCTTTTGGGAGTCATCAAGCAA 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                897
  establish
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 600
                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mouse; CXC chemokine receptor; pre-B cell line DW34;
CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1; HIV infection;
screening; inhibitor; AIDS; ds.
                                                                                                                                                                             GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                           GTGGGCGTCTGGATCCCAGCCCTCCTCATATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                        AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCGTCATCTCTCTCTGTTACTGCATCATCTTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                   crecaccrercaerdacreaccrecrerrigicarcaercecerrereagar
                                                                                                                                                          GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                           GTCAACCTCTACAGCGGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                          GTCAACCTCTACAGCGGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                          GTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                         AGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                       AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                        AGCCTGTGGATGGTGGTGTTTCAATTCAGCATATAATGGTGGTCTCATCCTGCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Arcercarcreterracrecarcarcarcreteragerereacacreteragescoac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                    Gaps
  possible to
                                                                                    ö
                                                             DB 2; Length 1758;
                                    Sequence 1758 BP; 447 A; 414 C; 369 G; 528 T; 0 U; 0 Other;
                                                          Query Match
100.0%; Score 690; DB 2; Length 1
Best Local Similarity 100.0%; Pred. No. 6.8e-186;
Matches 690; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CXC chemokine receptor.
substance capable of potentiating CXCR4. It is also methods for treatment with the use of these remedies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TICCACTGTTGCCTGAACCCCATCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Trocacretrectreaaccccarccrar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            to mRNA; 1877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  encoding a murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard; cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-NOV-1998
                                                                                                                                                                                                                                 358
                                                                                                                                                                                                                                                                                 418
                                                                                                                                                                                                                                                                                                                                478
                                                                                                                                                                                                                                                                                                                                                                                                                                598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              838
                                                                                                                                                         61
                                                                                                                                                                                  298
                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                538
                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV46370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV46370;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ន្តដូន្ត
                                                                                                                                                       8
8
                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                            ઠે
                                                                                                                              셤
                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                        \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
```

wouse CXC chemokine receptor binding to PBSF/SDF-1 pre-B cell stimulatory factor - is useful for screening of potential HIV infection and AIDS inhibitors.

Yoshida

Ä

Nagasawa T, Tachibana K, Iizasa Yoshie O;

Kishimoto T, Nakajima T,

WPI; 1998-447232/38. P-PSDB; AAW64778.

SHIO ) SHIONOGI & CO

Location/Qualifiers 120. .1199 /\*tag= a

Key

97WO-JP000299. 97WO-JP000299,

07-FEB-1997; 07-FEB-1997;

WO9835035-A1 13-AUG-1998

```
o
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                         The present sequence encodes a murine CXC chemokine receptor which binds to the mouse CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1. The nucleic acid is isolated from mouse pre-B cell line DW34. The receptor and cells expressing it can be used in the study and mapping of the mechanism of HIV infection and in screening of potential inhibitors of HIV infection and the development of AIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            357 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           477 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     537 ATTGTCCACGCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGAAAAGGCAGTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               597 GIGGGCGTCTGGATCCCAGCCCTCCTCACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301 AGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             417 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GFGGGGGTCTGGATCCCAGCCCTCCTGCTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      717 AGCCHGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATOGICATCCTCCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CTGCACCTGTCAGTGGCTGACCTCTTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
100.0%; Score 690; DB 2; Length 1877;
Best Local Similarity 100.0%; Pred. No. 7e-186;
Matches 690; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1877 BP; 469 A; 451 C; 406 G; 551 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                  Claim 3; Page 39-42; 76pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
```

BP; 231 A; 313 C; 247 G; 259 T; 0 U;

Sequence 1050

926 9

896 900

```
The present invention relates to a method for predicting a toxic effect of a compound. The method comprises preparing a gene expression profile of a tissue or cell sample exposed to the compound, and comparing the gene expression profile to a database comprising SEQ ID 1-4225, where differential expression of the gene indicates at least one toxic effect. The method is useful for predicting at least one toxic effect of a compound, predicting an agent that modulates the onset or compound, identifying an agent that modulates the onset or progression of a toxic response, predicting the cellular pathways that a compound modulates in a cell, and identifying an agent that modulates at compound modulates in a cell, and identifying an agent that modulates at compound and identifying an agent that modulates at least one activity of a protein. The method and compositions of the present invention using a database of genes having liver toxin-liduced differential expression, are useful in identifying toxicity markers in liver tissues or cells for drug screening and toxicity assays. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at fire wipo.int/pub/published_pct_sequences.
                                                                                                                                      GGATGTCGAGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTGGCCTTC 1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Predicting a toxic effect of a compound, useful in identifying toxicity warkers in liver tissues or cells for drug screening and toxicity assays, comprises preparing gene expression profile of tissue or cells exposed to the compound.
GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTTC
                                                    CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Elashoff
                                                                                                                                                                                                                                                                                                                                                                                                                                     c; toxin, gene expression profile; hepatotoxicity; liver; screening; toxicity assay; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Castle A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'n,
                                                                                                                                                                                   TTCCACTGTTGCCTGAACCCCATCCTCTAT 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Johnson K, Higgs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; SEQ ID NO 3447; 1156pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                            Toxicity-related gene, SEQ ID 3447.
                                                                                                                                                                                                                                                                                                          BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-JAN-2002; 2002US-00060087.
15-MAR-2002; 2002US-0364045P.
15-MAR-2002; 2002US-0364055P.
30-DEC-2002; 2002US-0436643P.
                                                                                                                                                                                                                                                                                                        ADB58421 standard; DNA; 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-JAN-2003; 2003WO-US003194
                                                                                                                                                                                                                                                                                                                                                                          04-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Porter M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOGIC INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-689530/65.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO2003064624-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GENE-) GENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mendrick D,
                                                                                                                                                                                       661
                                                                                                                                                                                                                     1017
                   837
                                                    541
                                                                                                                    601
                                                                                                                                                     957
                                                                                                                                                                                                                                                                                                                                          ADB58421
                                                                                                                                                                                                                                                                                                                                                                                                                                              Toxic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               drug
                                                                                                                                                                                                                                                                      음
                                                                         셤
                                                                                                                  ò
                                                  δ
                                                                                                                                            рp
                                                                                                                                                                          ò
                                                                                                                                                                                                              셤
```

Σ

```
Ä
                                                                                                                                                                                                                                         360
                                                                                                342
                                                                                                                    180
                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                             540
                                                          282
                                                                             120
                                                                                                                                       402
                                                                                                                                                                                                 300
                                                                                                                                                                                                                   522
                                                                                                                                                                                                                                                           567
                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                   627
                                                                                                                                                                                                                                                                                                                                        687
                                                                                                                                                                                                                                                                                                                                                                                747
                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                      807
                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                             867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   diagnostic marker;
                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGCACCTGTCCGTGGCTGACCTCCTCTTTGTCACACACTCCCCTTCTCGGCAGTGGAC
                                                                                          283 GCCATGGCTGACTGGTACTTTGGGAAATTTTTATGTAGGCTGTGCATATCATCTGTACACC
                                                                                                                     GICAACCICTACAGCAGCGITCTCAICCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                 343 GTCAACCTTTACAGCAGTGTTCTCATCCTGGCCTTCATCAGCCTGGACCGCTACCTTGCC
                                                                                                                                                          GIGGGCGICTGGAICCCAGCCCICCTCAACAAAACCIGACTICAICTITGCCGACGIC
                                                                                                                                                                                                               AGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                  AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                            AGCCTGTGGATGGTGGTGTTCCAGTTCCAGCACATCATGGTGGGTCTCATCCTGCCGGGC
                                                                                                                                                                                                                                                                                                                      ATCGTCATCCTCTGTTACTGCATCATCTCTTAAGCTGTCACACACCTCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                        Arcercarccrercretracrecarcarcarcrecaaecrercacacrecaaeeecac
                                                                                                                                                                                                                                                                                                                                                                       CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                               GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                              CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                     Gaps
                     15;
 Length 1050;
                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Primary rat hepatocyte toxicity modelling related gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  toxic effect, gene expression profile, hepatotoxicity, toxicity marker, toxicity progression, drug screening; primary rat hepatocyte toxicity modelling, gene, ds.
Score 575.4; DB 9;
Pred. No. 2.3e-153;
0; Mismatches 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Trocacrerrancececarcera 689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCCACTGTTGCCTGAACCCCCATCCTCTA 896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ВЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADB53005 standard; DNA; 1050
 Query Match
Best Local Similarity 91.1%;
Matches 628; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO2003065993-A2
                                                            223
                                                                                                                                                                                                                                                                                                                                          628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      868
                                         Н
                                                                              61
                                                                                                                     121
                                                                                                                                                                               403
                                                                                                                                                                                                  241
                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                    568
                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                        748
                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                              808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADB53005;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 4
ADB53005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                              g
                                                                                                                    à
                                                                                                                                    유
                                                                                                                                                          ð
                                                                                                                                                                            유
                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                              à
                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                    ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . 유
```

Page

420

627

480

687

540 747 900 9

867

807

```
CXC-chemokine receptor-4, CXCR-4, stromal cell derived factor-1, SDF-1, ligand, chemotaxis; inflammation, G-protein-coupled receptor; signal transduction, CD4-independent; HIV-1, infection, proliferation, transformation, tumovir, cancer; tumour; overexpression; brain; breast; colon, lung, melanoma; glioblastoma; inhibition, growth arrest; diagnosis; prognosis; marker; proliferative disorders; antisense; therapy, treatment; premalignant condition; hypertrophy; degenerative disorder; Parkinson's disease; Alzheimer's disease; growth deficiency; hypoproliferative disorder; physical trauma; lesion; ischaemia; wound; ds
                                                                                                                                                                                                               AGCCTGTGGATGGTGGTGCTTCCAGTTCCAGCACATCATGGTGGGTCTCATGCTGCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTACCGTATTACGTGGGGATCAGCATCGATTCCTTCATCCTTTTGGAGGTCATCAACAA
                                                                                                                             ATCGTCATCCTGTCTGTTACTGCATCATCTCCCAAGCTGTCACACCTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                  GGATGTGAGTTCGAGAGCGTCGTGCACAAGTGGATCTCCATCACGAGGCCCTCGCCTTC
                                      GTGGGTGTCTGGATCCCCGCCCTCCTCTATATCCCTGACATCATCTTCGCCGATGTC
                                                                                                 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                               ATCGTCATCCTCTCCTGTTACTGCATCATCATCTTAAGCTGTCACACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                             CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                               AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human CXC-chemokine receptor-4 (CXCR-4) cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCCACTGTTGCCTGAACCCCATCCTCTA 689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /*tag= a
/product= "Human CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (NWBI-) NORTHWEST BIOTHERAPEUTICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
1. .1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAZ38553 standard; cDNA; 1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US007431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0079916P
98US-0104656P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-FEB-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9950461-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-MAR-1998;
16-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-0CT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAZ38553;
                                                                                               301
                                                                                                                                                                                                                      568
                   241
                                                          463
                                                                                                                                      523
                                                                                                                                                                               361
                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                      628
                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                    688
                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                   8 8 8
                                                                                                                             g
                                                                                                                                                             경 음
                                                                                                                                                                                                                                                    8 8
                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                       OD
                                                                                                                                                                                                                                                                                                                                                                                                                           8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention describes a method for determining whether a compound induces a toxic effect on a tissue or cell. The method comprises preparing a gene expression profile of a tissue or cell sample exposed to the compound, and comparing the gene expression profile to a database comprising data or information on the Tox mean and non-Tox mean value. The method is useful for predicting or identifying at least one toxic effect, particularly hepatotoxicity, of a test or unknown compound. The genes listed in the specification are useful as diagnostic or toxicity markers for the prediction or identification of the physiological state of tissue or cell sample that has been exposed to a compound, or to identify or predict the toxic effects of a compound or an agent. These may also be used as markers for monitoring toxicity progression or for drug screening. The present sequence represents a primary rat hepatocyte toxicity modelling related gene sequence from the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCATGGCTGACTGGGTACTTTGGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Determining if a compound induces a toxic effect on a tissue or cell, for identifying hepatotoxic compounds, comprises comparing a gene expression profile of a tissue or cell sample to a database of Tox mean and non-Tox
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                223 CTGCACCTGTCGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCACTGGAC 282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             283 GCCATGGCTGACTGGTACTTTGGGAAATTTTTATGTAAGGCTGTGCATATCATCTACACC 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCACCTGTCAGTGGCTGACCTCCTCTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCAACCTCTACAGCGGTGTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             343 Grcaaccrrracadcagrerrererereresecrreaceresecreseceracerrace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 83.4%; Score 575.4; DB 9; Length 1050; Best Local Similarity 91.1%; Pred. No. 2.3e-153; Matches 628; Conservative 0; Mismatches 46; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Orr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1050 BP; 231 A; 313 C; 247 G; 259 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Castle A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Higgs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 44; SEQ ID NO 3547; 874pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Johnson K,
                                                                     04-FEB-2002; 2002US-0353171P.
13-MAR-2002; 2002US-0353534P.
10-APR-2002; 2002US-0351318P.
10-APR-2002; 2002US-0371134P.
10-APR-2002; 2002US-0371134P.
11-APR-2002; 2002US-0371136P.
11-APR-2002; 2002US-0371136P.
11-APR-2002; 2002US-03713601P.
19-APR-2002; 2002US-0373602P.
22-APR-2002; 2002US-0373602P.
22-APR-2002; 2002US-0378652P.
09-MAY-2002; 2002US-0378653P.
09-MAY-2002; 2002US-0378653P.
09-MAY-2002; 2002US-0378653P.
09-UUL-2002; 2002US-0378653P.
09-UUL-2002; 2002US-0378653P.
09-UUL-2002; 2002US-0378653P.
09-UUL-2002; 2002US-0378653P.
09-UUL-2002; 2002US-0378653P.
                                    04-FEB-2003; 2003WO-US003482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mendrick D, Porter M,
Elashoff M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GENE-) GENE LOGIC INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-731472/69.
14-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
```

g ò g g à

ò

This sequence represents CDNA encoding CXC-chemokine receptor-4 (CXCR-4).

Chemokine receptors play an important role in the chemotaxis of T-cells and phagocytic cells to areas of inflammation. CXCR-4 is a member of the cand phagocytic cells to areas of inflammation. CXCR-4 is a member of the CG -protean-coupled receptor family, which is involved in signal transduction, and its ligand is stromal cell derived factor-1 (SDP-1, ANY-2508). CXCR-4 also mediates CD4-independent infection by HIV-1. CXCR-CC ANY-2508). CXCR-4 also mediates CD4-independent infection by HIV-1. CXCR-CC ANY-2508). CXCR-4 also mediates CD4-independent infection by HIV-1. CXCR-CC ANY-2508). CXCR-4 also mediates CD4-independent infection by HIV-1. CXCR-CC ANY-2508). Particularly in brain, breast and colon tumours It was complemented for the continuous proliferation of glioblascence and colon tumours. It was complemented for the continuous proliferation of glioblascena cancer. CC primary brain tumour tissues, breast tumour tissues, colorectal adenocarcinoma, lung carcinoma and melanoma cell lines. CXCR-4 expression was required for the continuous proliferation of glioblascena cancer. CC cells, and inhibition of its gene function resulted in growth arrest. CC proliferation. CXCR-4 and SDP-1 can be used as markers for the diagnosis and prognosis of cell proliferative disorders, and antisense colligonucleotides complementary to at least a portion of an RNA transcript of a cXCR-4 gene can be used to inhibit hyperproliferation of a tumour ccc braventing a disease or disorder involving edel overproliferation of control properties and benign dysproliferation of a tumour ccc brain cancer, propertie cancer and B cell corpusing a disease or disorder involving a deficiency in colligonal disease or disorder involving a deficiency in colligonal disease or disorder involving a deficiency in colligonal disease, Alzheimer's disorder involving a deficiency in coll proliferative disorders and benign dyspercenting or treating a condition where cell proliferation Use of CXCR-4 and SDF-1 as markers for diagnosis and treatment of tumors, degenerative disorders, growth deficiencies, hyper- and hypoproliferative disorders, physical trauma, lesions and wounds. Disclosure; Fig 14; 138pp; English Sehgal A; by ischaemia), and wounds Boynton AL, WPI; 2000-052634/04. GP, 

Sequence 1059 BP; 244 A; 301 C; 232 G; 282 T; 0 U; 0 Other;

GICAACCICTACAGGAGGGIICICAICCIGGCCTICAICAGCCIGGACCGGAACCICGCC 180 412 ATCGTCCACGCCACCCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT 471 crecaccidicagiesceaccicciciristraicacecricccirciesscariaar 291 1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAAGGCTGTCCATATCATCTACACT 352 Grcaaccicracaccacrercercarecresecericareacreseacreseceraceres 15; 75.0%; Score 517.2; DB 3; Length 1059; llarity 85.8%; Pred. No. 8.8e-137; Conservative 0; Mismatches 83; Indels 15; Similarity Local Simes 592; 121 232 19 Query Match g g 8 8 ઠ a 8

120

9

ઠે ద

576 420 636 480 969 540 756 600 816 999 876 697 CAGAAGGCCCTCAAGACCACACTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG ATTGTCATCCTGTCTGCTATTGCATTATCATCTCCAAGCTGTCACACTCCAAGGGCCAC CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA CTGCCTTACTACATCAGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA 817 GGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACGGGGCCCTAGCTTTC 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC CTTTGCCTGCTGG GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 577 gacırigindengerininginincagriricağcacarcarderingecirrarecieeringer ATCGTCATCCTCTCTGTTACTGCATCATCTCTCTAAGCTGTCACACTCCAAGGGCCCAC CAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT riccacidrigicidaaccccarccitar 906 637 757 877 421 481 541 601 530 661 8 g 8 ద ò 요 ઇ ద à ద à g

Cysteine-X-cysteine chemokine receptor 4; CXC chemokine receptor 4; binding; identification; AIDS; HIV; CXCR4; virucide; anti-HIV; gene; CXC chemokine receptor 4 encoding cDNA SEQ ID NO:125. BP. ABQ74938 standard; cDNA; 1059 30-OCT-2002 (first entry) Homo sapiens ABQ74938; Human 

RESULT

ss.

 1059 / \*tag= a /\*tag= a /product= "Cysteine-X-cysteine chemokine receptor 4" Location/Qualifiers WO200257313-A2

26-OCT-2001; 2001WO-US051165 25-JUL-2002.

Kates G, Tan Hehir 27-OCT-2000; 2000US-0243587P. 20-WAR-2001; 2001US-00813448. 20-WAR-2001; 2001US-00813651. 20-WAR-2001; 2001US-00813653. CONS-) CONSENSUS PHARM INC. Wilson CJ, WPI; 2002-608378/65. Nestor JJ,

P-PSDB; ABP52651.

411 240

Kratenansky

SA,

Identifying a binding compound for cysteine-X-cysteine chemokine receptor (CXCR4) for preventing or treating AIDS and HIV infection, comprises binding a molecule to a molecule with a binding property corresponding to

Example 3; Fig 3A-B; 92pp; English

The present invention describes a method (M1) for identifying a binding compound for cysteine-X-cysteine chemokine receptor 4 (CXCR4) comprises binding a molecule from the library of two or more molecules to the molecule with a binding property corresponding to CXCR4, (M1) comprises:

(a) providing a library of two or more molecules; (b) providing a molecule with a binding property corresponding to CXCR4, (c) binding a molecule from the library of two or more molecules to the molecule with a binding property corresponding to CXCR4, (d) separating the bound compound from the library of two or more molecules; and (e) identifying the bound molecule as a binding compound for CXCR4. Also described is a binding compound (I) for CXCR4 identified from M1. (I) has virucide and contributes. A partially purified CXCR4 protein is useful for carrying out selection, identification and improvement of tight binding ligands in identifying therapeutically useful compounds. Therapeutic CXCR4 binding may be used in the prevention and treatment of AIDS and HIV infection. The present sequence encodes human CXCR4 which is given in an axiangle from the present invention. 8888888888888888888888888

Chemokine receptor 4; CXCR4; gene; human; ss; chromosome 2q21;

AAH99952 standard; cDNA; 1059

RESULT 7 AAH99952

(first entry)

18-JUN-2002

CXCR4 encoding sequence

Human 1

ATCGTCATCCTCTCTGTTACTGCATCATCATCTTAAGCTGTCACACTCCAAGGGCCAC 480 CTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCCAGTTGAT 291 GCCATGGCTGACTGGGTACTTTGGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120 GICAACCICIACAGCAGCGIICTICAICCIGGCCIICAICAGCCIGGACCGGIACCICGCC 180 352 GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC 411 GTGGGCGTCTGGATCCCCAGCCCTCCTGACTATACCTGACTTTCATCTTTGCCGACGTC 300 GTTGGCGTCTGGATCCCTGCTCCTGCTGACTATTCCCGACTTCATCTTTGCCAACG-- 529 301 AGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCCGAT 360 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 600 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660 292 GOGGIGGCAAACTGGTACTTTGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA 351 Arcerccaceccaceacaercaeaeccaaecaaecaecrerreecreaaaaecrearar 471 530 ------TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT 576 361 AGCCTGTGGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 420 cadadececandedecercandadecendarearecentarecendecerricaredecendered 756 757 crecerracracarressarcascarceacrecrrerecresseaarcarcascaa 816 1 CIGCACCIGICAGIGGCIGACCICCTCITIGICAICACACICCCCTICIGGGCAGITGAI 60 Query Match 75.0%; Score 517.2; DB 6; Length 1059; Best Local Similarity 85.8%; Pred. No. 8.8e-137; Matches 592; Conservative 0; Mismatches 83; Indels 15; Gaps Sequence 1059 BP; 244 A; 301 C; 232 G; 282 T; 0 U; 0 Other; rrccacrerreccreaaccccarccrar 690 181 472 697 61 121 412 241 421 637 481 541 601 817 d ò a δ a ठ व ठ d  $\delta$ q ∂ g g Q ò g 65 ò g ò

```
The invention relates to an isolated chemokine receptor 4 (CXCR4) polynucleotide which is useful for studying expression and function of chemokine receptor 4 and for the treatment of virtuess, including HIV-1. Methods associated with chemokine receptor 4 are useful for improving the efficacy and reliability of several steps in the discovery and development of drugs for treating diseases associated with CXCR4 activity, e.g., human immunodeficiency virus-1 infection. They can validate CXCR4 as a candidate agent for treating a specific condition or disease predicted to be associated with CXCR4 activity, and in the design of clinical trials of candidate drugs for treating a specific condition or disease predicted to be associated with CXCR4 activity. CXCR4 polynucleotides are useful for therapeutic purposes such as to treat HIV-1 infection and also are useful for studying expression of the CXCR4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTACACA 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Isolated human chemokine receptor 4 polynucleotide, useful for studying expression and function of chemokine receptor 4 and for treating human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              232 CIGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTTCTGGGGAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCACCTGTCAGTGGCTGACCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                  /-rag= a /single nucleotide polymorphism"
replace(783,T)
//tag= b
                                                                                                                                                                                                                                                                                               /*tag= b
/standard_name= "single nucleotide polymorphism"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  75.0%; Score 517.2; DB 6; Length 1059; 85.8%; Pred. No. 8.8e-137; ive 0; Mismatches 83; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1059 BP; 244 A; 301 C; 232 G; 282 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This sequence represents the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Koshy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Choi JY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 24; Fig 2; 54pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GENA-) GENAISSANCE PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                  13-APR-2001; 2001WO-US012268.
                                                                                                                                                                                                                                                                                                                                                                                                                                                .3-APR-2000; 2000US-0197025P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      immunodeficiency virus-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 85.8
Matches 592, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chew A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-075062/10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        isogenes in vivo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P-PSDB; AAG78471.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bentivegna SC,
                                                                                                                                                                                                                                                                                                                                                 WO200179229-A2
                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                  variation
                                                                                                                                                                                                                                                                                 rariation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
```

```
360
                                                                                                                                                     420
                                                                                                                                                                                                480
                                                                                                                                                                                                                   969
                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                            756
                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                     816
                                                                                                                                                                                                                                                                                                                           99
      411
                                                471
                                                                     241 GTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 300
                                                                                                                                 576
                                                                                                                                                                          636
                                                                                                                                                                                                                                                                                                                                              876
                                                                                  GTTGGCGTCTGGATCCCTGCCTCCTGCTGATTCCCGACTTCATCTTTGCCAACG--
                                                                                                                                                                                                                                                    CAGAAGCGCAAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                                                                                                                                                  CIGCCITACTACATGGGATCAGCATCGACTCCTTCATCTCTGGAAATCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                        GGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC
                                        301 AGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                              ------TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT
                                                                                                                                                     361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGTCTCATCCTGCCCGGC
                                                                                                                                                                          ATCGTCATCCTCTCCTGTTACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                   ATTGTCATCCTGTCTGCTATTGCATTATCATCTCCAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                         CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                           GGATGTGACTTCGAGGGATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
     Greaacereraeageagrerereareregeerreareagreregaeegeregee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            , cancer; diagnosis; screening; modulator; leukaemia; ischaemia; disease; atherosclerosis; endometriosis; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wilson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human cancer related protein encoding cDNA SEQ ID NO:46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mack
                                                                                                                                                                                                                                                                                                                                                                              TTCCACTGTTGTCTGAACCCCATCCTCTAT 906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hevezi PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                            ACC72707 standard; cDNA; 1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BIOTECHNOLOGY INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-SEP-2001, 2001US-0323469P.
20-SEP-2001, 2001US-0323887P.
13-NOV-2001, 2001US-03566EP.
08-FEB-2002, 2002US-03555145P.
08-FEB-2002, 2002US-0355257P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-APR-2002; 2002US-0372246P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-SEP-2002; 2002WO-US029560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gish KC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Aziz N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO2003025138-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-MAR-2003
                                              412
                                                                                        472
                                                                                                                                  530
                                                                                                                                                                                               421
                                                                                                                                                                                                                   637
                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                     757
                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                               817
                                                                                                                                                                                                                                                                                                                                                                   661
                          181
                                                                                                                                                                                                                                                             697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (EOSB-)
                                                                                                                                                                                                                                                                                                                                                                                                                     à
g
                     2 6 6 6
                                                                                                                                                                                                                                   8 8 8
                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                          8 8
                                                                                                                                                                                                                                                                                                                                                                                 ద
```

```
The present invention describes an isolated nucleic acid molecule, which comprises the sequence of any of the genes that are up-regulated or down-cegulated in specific cancers (e.g. about 1031 genes up-regulated in caute lymphocytic leukemia). ACC72641 to ACC72860 represent cancer related gene nucleotide sequences which encode the proteins given in CC selection of a pathological cell in a patient; (2) an expression vector comprising a nucleic acid molecule described above; (3) a host cell comprising the vector; (4) an isolated polypeptide, which is encoded by the nucleic acid; (5) an antibody that specifically binds the polypeptide of (4); (6) specifically targeting a compound to a pathological cell in a patient by administering to the patient the antibody above; and (7) a patient by administering to the patient the antibody above; and (7) a cut greening a pathology, e.g. cancer (e.g. cancer of the bone marrow, therefore, brain, breast, cervix, colon/rectum, kidney, lung, ovary, pancreas, prostate, skin and uterus), wounds, ischaemia, heart disease, atherosclerosis and endometriosis. The nucleic acid is also useful in a charactering the patient for identifying agents for treating these
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           291
                                                                            New genes that are up-regulated or down-regulated in cancers, useful a markers for diagnosing e.g. cancer, ischemia or heart diseases, or as therapeutic targets for screening drugs for treating these diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGAAGCGCAAAGGCCCTCAAGACCACACACACACTCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 GCCATGGCTGGCTGGTACTTTGGGAAATTTTGTGTGTAAGGCTGTCCATATCATCTACGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 GIGGGCGICIGGAICCCAGCCCICCICCIGACIAIACCIGACIICAICTIIGCCGACGIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCGTCATCCTCTCTGTTACTGCATCATCATCTTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               232 CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 GTCAACCTCTACAGCAGCGTTCTCATCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -------rchdrghgeggaghrghchgarhrarchgrghggggchrarhccchh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match

75.0%; Score 517.2; DB 7; Length 1059;
Best Local Similarity 85.8%; Pred. No. 8.8e-137;
Matches 592; Conservative 0; Mismatches 83; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1059 BP; 244 A; 300 C; 232 G; 283 T; 0 U; 0 Other;
                                                                                                                                                  Claim 8; Page 650; 767pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          pathologies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               合
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
```

WPI; 2003-354600/33. P-PSDB; ABR58580.

```
99
                                                                                                                                                                  GGGTGTGTGTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC 876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human, artery, endothelium, umbilical, vein, aorta, pulmonary artery,
bronchial epithelium; prostate; muscle, lung fibroblast, osteoblast,
tumour, microarray, genome mapping, antibiotic, antiviral, antifungal,
gene expression; gene; ss.
CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                   GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human gene expression profile polynucleotide SEQ ID NO 741.
                                                                                                                                                                                                                                    690
                                                                                                                                                                                                                                                                      TECACTGTTGTCTGAACCCCATCCTTAT 906
                                                                                                                                                                                                                                                                                                                                                                                                                                            ABZ35630 standard; cDNA; 1225 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200274979-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-FEB~2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-SEP-2002
                                                        757
                                                                                                                601
                                                                                                                                                                        817
                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                         877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABZ35630;
                                                                                                                                                                                                                                                                                                                                                                                RESULT 9

ABES 3530

ABES 3530

XXX

XXX

XXX

XXX

ABES 3530

DIT 05-11

SECOND 10-11

ABES 3530

DIT 05-11

ABES 3530

                                                  임
                                                                                                          ਨੇ
                                                                                                                                                            Бb
                                                                                                                                                                                                                                 \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                               g
```

ö

identifications and in identifying promising antibiotics, antiviral antifungal agents

Sequence 1225 BP; 288 A; 324 C; 259 G; 354 T; 0 U; 0 Other;

Score 517.2; DB 6; Pred. No. 9.3e-137;

75.0%;

Query Match

8 X G G

Gabs

New gene expression profile generated from primary, endothelial, epithelial, and muscle cell types, useful for identifying disease pathologies involving alterations of gene expression, e.g. cancer.

(ORTH ) ORTHO CLINICAL DIAGNOSTICS INC.

WPI; 2002-740862/80. Wan J, Wang Y;

20-MAR-2002; 2002WO-US008456. 20-MAR-2001; 2001US-0276947P Example 3; Page 827-828; 850pp; English

The invention relates to a gene expression profile comprising one or more genes (ABZ34889-ABZ35692) and generated from a cell type. The cell type is a coronary artery endothelium, umbilical artery or vein endothelium, ocruic endothelium, promothal epithelium, meratinocyte epithelium, monothal epithelium, menal proximal tubule epithelium, prontial epithelium, menal proximal tubule epithelium, prontial epithelium, menal proximal tubule epithelium, prostate cepithelium, umbilical artery smooth muscle, neonatal dermal fibroblast, pulmonary artery smooth muscle, neural progenitor cells, skeletal muscle, astrocytes, cortic smooth muscle, neural progenitor cells, skeletal muscle, astrocytes, cortic smooth muscle, uterine smooth muscle, lung fibroblast, bronchial smooth muscle, uterine smooth muscle, lung fibroblast, cottodermining the level of RNA expression for a sample, determining the level of RNA expression for a sample, determining the phenotype of a cell and distinguishing cell types. The gene or a protein expression profile is useful in identifying disease pathologies involving the attentions of gene expression with respect to tumour type and stage, treatment methods, and prognosis. The gene or protein expression profile may also be used for creating microarray. The microarray is useful for genetic and physical mapping of organisms, confirming cell or tissue medical diagnosis, genetodia, sender or protein expression profile.

```
9
                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                       436
                                                                                                                                                                                                                                                                    496
                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; probe; ss; array element; Parkinson's disease;
signalling pathway population; cancer; adenocarcinoma; leukaemia;
immunopathy; AIDS; asthma; neuropathy; Alzheimer's disease; microarray
                                                                              257 crecacciercadrescesacciccicrirercarcacecricectroressagarear
                                                                                                                              317 GCCGGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA
                                                                                                                                                                         121 GICAACCICTACAGCAGCGITCICATCCIGGCCTICATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                             437 Arcerceaedecaecaaeaaeaeaeaaaeeaaaeererreeergaaaaerearar
                                                                                                                                                                                                                                                                                                    241 GIGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                              497 GITGGCGICIGGALCCCTGCCTCCTGCTGACTAITCCCGACTICAICTITGCCAACG--
                                                                                                                                                                                                                                                                                                                                                               301 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGAT
                                                                                                                                                                                                                                                                                                                                                                                       361 AGCCIGIGGAIGGIGGIGITICAATICCAGCATATAATGGIGGGICTCAICCIGCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                    421 ATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       662 ATTGTCATCCTGTCCTGCTATTGCATTATCATCTCCAAGCTGTCACACTCCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    722 cadaadcocaaddccrcaadaccacagrcarccrcarccreectrrcreectric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601 GGAIGIGACTICGAGAGCAIIGIGCACAAGIGGAICTCCCAICACAGAGGCCCICGCCTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       842 GGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC
                                              1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                           61 GCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATCTACACT
              15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human signalling pathway polynucleotide probe SEQ ID NO 1235
                83; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TICCACTGITGCCTGAACCCCATCCTCTAT 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           902 rrccacrerrereraaccccarccrer 931
                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACA56637 standard; cDNA; 1225
Est Local Similarity 65.0
Matches 592; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACA56637;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                               555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAS6637
XX
AC ACAE
XX
DT 06-4
XX
XX
DE Hum
XX
KW Hum
XW sig
XX
OS HOM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                         qq
                                                                                                           \delta
                                                                                                                                        g
                                                                                                                                                                                                  g
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                           \delta
                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                         ò
```

σ

The invention relates to a combination which, comprises a number of polynucleotide probes comprising a sequence selected from one of the 1490 sequences mentioned in the specification. The combination is useful as an array element in a microarray for monitoring the expression of a number of target polynucleotides. The microarray is particularly useful in the diagnostics and treatment of cancer and immunopathology and neuropathology. The microarray is useful in diagnostics and treatment regimens, drug discovery and development, toxicological and carcinogenicity studies, of corensics and paramacogenomics. The microarray is also useful for monitoring progression of diseases and for developing sophisticated profiles for the effects of currently available therapeutic drugs. The combination is also useful for purifying a subpopulation of mRNAs, cDNAs and genomic fragments and in research and diagnostic applications. The carray can detect changes in expression in a large number of genes coding for different signaling pathway populations which can be used to diagnose various diseases including cancer e.g. adenocarcinoma and larkaemia, immunopathies e.g. AlDS and asthma, neuropathies e.g. Alzheimer's disease and Parkinson's disease. The present sequence represents a polynucleotide form part of the printed specification but was obtained in electronic format directly from USPTO at m17DocID=06500938B1 Combination of polynucleotide probes, useful as array elements in microarray for monitoring the expression of a number of target polynucleotides. Claim 1; SEQ ID NO 1235; 65pp; English. 98US-00016434 (INCY-) INCYTE GENOMICS INC. Seilhamer JJ; WPI; 2003-352189/33 30-JAN-1998; US6500938-B1 Au-Young J, 31-DEC-2002 

Sequence 1225 BP; 288 A; 324 C; 259 G; 354 T; 0 U; 0 Other;

496 180 257 CTGCACCTGTCAGTGGCCGACCTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT 316 120 436 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360 601 241 GIGGGCGTCTGGATCCCAGCCCTCCTCATATACCTGACTTCATTTTGCCGACGTC 300 497 Gridecerciesárica de desercios de deservicios de deservicios de deservicios de deservicios de deservicios de deservicion de deservicio 9 ATCGTCCACCCACCAACAGCTCAGAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT -----TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT 1 crecaccrercaereaccreatricarcarcaerecerrenegation GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 377 GICAACCICTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC 121 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC Gaps 15; Query Match 75.0%; Score 517.2; DB 7; Length 1225; Best Local Similarity 85.8%; Pred. No. 9.3e-137; Matches 592; Conservative 0; Mismatches 83; Indels 15; 61 437 à 셤 ò 셤 ò 8 ò g ઠ g ð

480 540 600 999 901 721 781 841 The present novel sequence represents the human RM3 cDNA isolated from a human macrophage cDNA library. The invention claims for the full length V28 genomic DNA sequence (AAV18343) isolated from a human placenta genomic library. The V28 (AAW4872) and RM3 proteins are seven transmembrane (7TM) receptors which are probably involved in signal transduction. The invention also claims that cells transformed with V28 DNA encoding V28 seven transmembrane receptor polypeptide - useful for producing recombinant polypeptide and anti-V28 antibodies, and in screening assays for V28 agonists and antagonists. V28; placenta; seven transmembrane receptor; 7TM; signal transduction; immunology; inflammation; RM3; ss. 601 GGATGTGACTTCGAGAGTATGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 602 gacrididggrightgraftrangtrangaragcaraaccraga 421 ATCGTCATCCTCTCTTACTGCATCATCTTTAAGCTGTCACACTCCAAGGGCCAC CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC /\*tag= a /product= "Human RM3 seven transmembrane receptor" Human RM3 seven transmembrane (7TM) receptor cDNA. TTCCACTGTTGCCTGAACCCCATCCTCTAT 690 TTCCACTGTTGTCTGAACCCCATCCTCTAT 931 Godiska R, Gray PW; Example 11; Col 89-94; 56pp; English. Location/Qualifiers 201. .1211 ВР AAV18357 standard; DNA; 1317 92US-00977452. 93US-00153848 (first entry) WPI; 1998-332132/29. P-PSDB; AAW48734. (ICOS-) ICOS CORP Schweickart VL, sapiens 17-NOV-11993; 17-NOV-1992; 25-SEP-1998 US5759804-A. 02-JUN-1998 481 541 842 902 AAV18357; 661 RESULT 11
AAV18357
AAV18357
AAV18357
AAV18357
AAV18
AAV18357
AAV18
AAV18
AAV18357
AAV18
AA 요 g à q Ś 엄 à g ò 8

us-09-367-052-3.rng

```
The present sequence is a novel coding sequence for a seven transmembrane (TTM) receptors (also known as heptahelical, serpentine or G-protein-coupled receptors). The present sequence may be used for gene therapy for diseases such as cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           387 CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               447 GCCGTGGGAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            507 GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         567 ATCGTCCACCACCAACAGTCAAAGGCCAAAGAAGCTGTTGGCTGAAAAGGTGGTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GIGGGCGICTGGAICCCAGCCCICCTCCIGACIATACCIGACTICAICTITGCCGACGIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        627 GTTGGCGTCTGGATCCCTGCTGCTGACTATTCCCGACTTCATCTTGCCAACG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----TCAGTGAGCAGATGACAGATATCTGTGACCGCTTCTACCCCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGTCTCATCCTGCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCGTCATCCTCTCCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                792 Arrercárcerereciarracarracarererecasecrereacacidades
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                     Polynucleotide encoding seven transmembrane receptors, antibody to the receptor, agonist and antagonist of the receptor useful ftreating inflammation in a mammal.
                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 85.8%; Pred. No. 9.6e-137;
Matches 592; Conservative 0; Mismatches 83; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1317 BP; 332 A; 342 C; 265 G; 378 T; 0 U; 0 Other;
                                                                                                                                                                                                            ŭ
                                                                                                                                                                                                                                                                                                                      Example 11; Col 95-98; 61pp; English
                                                                                                                                                                                                            Godiska
                                                                                                                      92US-00977452...
93US-00153848.
94US-00245242.
98US-00088337.
                                                                                                   99US-00299843
                                                                                                                                                                                                            ЪМ,
                                                                                                                                                                                                          Schweickart VL, Gray
                                                                                                                                                                                                                                   2000-571335/53
                                                                                                                                                                                                                                               P-PSDB; AAB21698
                                                                                                                      17-NOV-1992;
17-NOV-1993;
17-MAY-1994;
01-JUN-1998;
                                                                                                                                                                                   (ICOS-) ICOS
                            Homo sapiens
                                                                                                  26-APR-1999;
                                                   US6107475-A
                                                                          22-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음
   음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                        446
                                                                                                                                                                                                                      506
                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                     566
                                                                                                                                                                                                                                                                                                                                                                                                                   731
                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                           851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA 971
                                                                                                                                                                                              GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                             GIGGGCGICIGGAICCCAGCCCICCICCICACIAIACCIGACTICAICTITGCCGACGIC 300
                                                                                                                                                                                                                                                                                                                                                                    684
                                                                                                                                               60
DNA can be used to produce the recombinant polypeptide, to produce anti-
V28 antibodies or in screening assays for V28 agonists or antagonists. The antibodies, agonists and antagonists could then be used to modulate V28 receptor-ligand binding, for e.g. in immunological and/or inflammatory events in vivo
                                                                                                                                                                                                                                                                                                                                                           AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                             GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA
                                                                                                                                                                                                                                            GTCAACCTCTACAGCGATCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                            AGCCTGTGGATGGTGCTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCGTCATCCTCCTCTTACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          serpentine;
RM3; gene therapy;
                                                                                                                         15;
                                                                                                Length 1317;
                                                                       Sequence 1317 BP; 332 A; 342 C; 265 G; 378 T; 0 U; 0 Other;
                                                                                              Score 517.2; DB 2; Length Pred. No. 9.6e-137; 0; Mismatches 83; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         heptahelical;
R20; R2; R12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TICCACTGTTGTCTGAACCCCCATCCTCTAT 1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TICCACTGIIGCCIGAACCCCAICCICIAI 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seven transmembrane receptor, 7TM; G-protein-coupled, V28; V31; V112;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human 7TM receptor RM3 cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard; cDNA; 1317
                                                                                              Query Match
Best Local Similarity 85.8%;
Matches 592; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Н
                                                                                                                                                                     387
                                                                                                                                                                                                                   447
                                                                                                                                                                                                                                                                     507
                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               972
                                                                                                                                                                                                                                                                                                                   567
                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                              61
                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                    685
 8888888888
                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                             원장
                                                                                                                                                                                                                                                                                                                                                                                                               QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                              qq
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                    S G
                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                      8
```

240

626 300 684 360 731 420 791 480 851 540

446 120 506 180 266

09

Gaps

15;

us-09-367-052-3.rng

```
The invention relates to a purified and isolated R2 seven transmembrane (7TM) receptor. Also included are an anti-R2 antibody, a hybridoma producing the antibody, anigenic peptide fragments of R2, an antiserum producing the antibody, anigenic peptide fragments of R2, an antiserum produced by immunising a mammal with a composition comprising R2 or its fragment, where the fragment comprises at least one R2 extracellular or intracellular domain, and obtaining antiserum from the mammal after the immunishing step, where the antiserum contains antibodies that bind to the R2 7TM receptor, a polymucleotide encoding 7TM receptor R2 and a host cell stably transformed or transfected with the polymucleotide allowing the expression of R2 in the host cell. The antibody is useful for modulating ligand/antiligand binding of a R2 7TM receptor, especially conducting ligand/active binding reactions involved in immunological and/or inflammatory events in vivo. R2 is useful for producing antibodies. The antibodies for juminisation to generate anti-idiotypic antibodies. For purifying R2 polypeptides, for identifying cells producing the polypeptides on their surfaces and for the detection and quantification of 7TM receptors on cell surfaces and in fluids. The
                                                                                                                            099
                                                                       971
                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; ss; gene; 7 transmembrane domain receptor; 7TM; antiinflammatory; immunomodulatory; immunological disease; inflammation; familial brest cancer; von Hippel-Lindau syndrome; thyroid hormone resistance; small cell cancer of the lung; pseudo-Zellweger syndrome; hypoprothrombinaemia; dysprothrombinaemia.
852 CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                      601 GGATGTGACTTCGAGGATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                  CTGCCATATTATGTGGGGAICAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New seven transmembrane receptor polypeptide R2, useful for producing antibodies capable of modulating ligand/receptor binding reactions involved in in vivo immunological and/or inflammatory events.
                                                                                                                                                                                                                                                                                                                                                                                                           Human 7 transmembrane domain receptor RM3 cDNA,
                                                                                                                                                                                                 TTCCACTGTTGCCTGAACCCCATCCTCTAT 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Schweickart VL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 11; Col 95-98; 61pp; English
                                                                                                                                                                                                                                                                                                     ABK54255 standard; cDNA; 1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92US-00977452.
93US-00153848.
94US-00245242.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-00088337
                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gray PW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-266543/31.
P-PSDB; AAU91240.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ICOS-) ICOS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-NOV-1992;
17-NOV-1993;
17-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US6348574-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                           18-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Godiska R,
                                                                    912
                                                                                                                                        972
                                                                                                                                                                            661
                                                                                                                                                                                                                1032
                                                                                                                                                                                                                                                                                                                                         ABK54255
                                                                                                                                                                                                                                                                   RESULT 13
                                                                                                                                                                                                                                                                                  ద
                              ઠે
                                                                                                  Š
                                                                                                                           g
                                                                                                                                                                8
                                                                                                                                                                                                      원
```

```
polynucleotide is useful in DNA/RNA hybridisation assays to detect the capacity of cells to synthesies a TTM receptor. The host cell is useful for large scale production of TTM receptors, and in assays for identifying antagonist or agonists of TTM receptor binding. Other TTM receptors isolated in this study include V31 (located on chromosome 17q12-21.2, associated with familial brest cancer), V28 (Chromosome 3p21-ter, associated with von Hippel-Lindau syndrome, thyroid hormone resistance, small call cancer of the lung and pseudo-Zellweger syndrome), R20 (chromosome 11 pl1-pl3 associated with hypoprothrombinaemia and dysprothrombinaemia), V112 and R12. The present sequence is a polymucleotide encoding a 7TM receptor of the invention
                                                                                                                                                                                                                                                                                                      446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1031
                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                   61 GCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                              506
                                                                                                                                                                                                                                                                                                                                                                                                                         566
                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                       447 GCGGGGGAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GIGGEGITCTGGATCCCAGCCTCCTCACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                           ATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         627 GTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCATCTTTGCCAACG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              732 GACTIGLOGGIGGIGGITCCAGITTCAGCACAICAIGGITGCCITAICCTGCCIGGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    852 CAGAAGGCCACACACACACACATCATCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421 ATCGTCATCCTCTCTGTTACTGCATCATCTTCTAAGCTGTCACACTCCAAGGGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCCAGGGGGACATCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361 AGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGATGTGACTTCGAGGGTTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                             15;
                                                                                                                                                                                                             Query Match 75.0%; Score 517.2; DB 6; Length 1317; Best Local Similarity 85.8%; Pred. No. 9.6e-137; Matches 592; Conservative 0; Mismatches 83; Indels 15;
                                                                                                                                                                                Sequence 1317 BP; 332 A; 342 C; 265 G; 378 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Trecaciforiga acceptant 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Trccacrgttgtctgaaccccarccrar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard; DNA; 1582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABS64793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABS64793;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABS64793
ID ABS6
XX
AC ABS6
XX
   8868888888888888888
                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                  음
                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
WPI; 1999-591042/50, P-PSDB; AAY39993.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9948528-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                      808
               403
                                              241
                                                                         463
                                                                                                       301
                                                                                                                                                                                             568
                                                                                                                                                                                                                                                          628
                                                                                                                                                                                                                                                                                                                   688
                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                            748
                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAZ27610;
                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                    521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (CHUS)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 1
                                                                                                                             ď
                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                           8
                                                                    g
                                                                                                    ે
                                                                                                                                                               ઠે
                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to a new polypeptide capable of binding to a nucleic acid comprising a receptor nucleotide sequence which can function as a receptor for virus infection or is involved in an immune response. The molecules of the invention are useful in the treatment or prevention of a disease caused by a virus or of a disease associated with an infunction of a disease caused by a virus or of a disease associated with an infunction of a disease caused by a virus or of a disease. The zinc finger polypeptide or a nucleic acid encoding such a polypeptide can be used to modulate transcription of a receptor nucleotide sequence. The nucleic acid encoding as a receptor for infection by the virus or is involved in an erceptor nucleotide sequence, where the receptor is capable of functioning as a receptor for infection by the virus or is involved in an immune response, or a nucleic acid encoding such a polypeptide, can be used in the preparation of a medicament for use in the treatment or prevention of a disease caused by a virus or of a disease associated with or caused by malfunction of the receptor as the TNRM receptor, such as autoimmune farbratics or myocardities. The present encephalomyelitie, zheumatoid arthritis or myocardities. The present encephalomyelitie, rheumatoid arthritis or myocardities. The present encephalomyelitie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                            an
or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGCACCTGTCAGTGGCCGACCTCCTCTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GICAACCICIACAGCAGCGTICICAICCIGGCCTICAICAGCCIGGACCGGIACCICGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                    New polypeptide capable of binding nucleic acids for treating or preventing a disease caused by a virus or a disease associated with immune response, particularly autoimmune diseases e.g. inflammation rheumatoid arthritis.
                                                          Receptor; virus infection; immune response; autoimmune disease; TNFR1 receptor; inflammation; autoimmune encephalomyelitis; rheumatoid arthritis; myocarditis; CXCR4 receptor; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               75.0%; Score 517.2; DB 6; Length 1582; 85.8%; Pred. No. 1e-136; Live 0; Mismatches 83; Indels 15;
                                                                                                                                                                                                                                                                                                                   ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1582 BP; 386 A; 376 C; 333 G; 487 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                   Girdlestone
                                                                                                                                                                                                                                                                                                                   Ullman C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 12-13; 105pp; English
                                                                                                                                                                                                                                                                                                                 Reynolds L,
                                                                                                                                                                                                                                                                                     (SANG-) SANGAMO BIOSCIENCES INC
                                                                                                                                                                                                                                        22-JAN-2001; 2001GB-00001576, 07-FEB-2001; 2001GB-00003032,
                                                                                                                                                                                                          22-JAN-2002; 2002WO-GB000246
                              CXCR4 receptor DNA sequence
15-NOV-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 85.8
Matches 592; Conservative
                                                                                                                                                                                                                                                                                                                Moore M, Isalan M,
Demaison C, Choo Y;
                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-590720/63.
                                                                                                                                                  WO200257308-A2.
                                                                                                                     Unidentified
                                                                                                                                                                               25-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
462
                                   300
                                                        520
                                                                               360
                                                                                                    567
                                                                                                                           420
                                                                                                                                                 627
                                                                                                                                                                        480
                                                                                                                                                                                             687
                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                        747
                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                      807
                                                                                                                                                                                                                                                                                                             999
                                                                                                                                                                                                                                                                                                                                 867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  50
                                                                                                                                                                                    CAGAAGCGCAAGGCCCTCAAGACCACACATCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                                                                                                                                                                         GTTGGCGTCTGGATCCCTGCCTCCTGCTGATTCCCGACTTCATCTTGCCAACG--
                                                                                           CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                               CTGCCTTACTACATGGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCATGAGAA
                                                                                                                                                                                                                                                                                                             GGATGIGACTICGAGAGCATTGIGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                               AGCCAGGGGGGCATCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                            361 AGCCTGTGGATGGTGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                        ATCGTCATCCTCTCTGTTACTGCATCATCTTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                    This sequence encodes the human CXCR4 protein. The invention relates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CXCR4; human; neovascularisation; inhibitor; solid cancer; therapy; tissue repairing agent; vascularisation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CXCR4-potentiating agents and methods useful for inhibiting neovascularization, and treating solid cancers.
                                                                                                                                                                                                                                                                                                                                                          TICCACIGITGCCTGAACCCCAICCICIAI 690
                                                                                                                                                                                                                                                                                                                                                                     꿏
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 48-49; 63pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tachibana
                                                                                                                                                                                                                                                                                                                                                                                                                                        BP
                                                                                                                                                                                                                                                                                                                                                                                                                                        AAZ27610 standard; DNA; 1588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-JP001448.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98JP-00095448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human CXCR4 coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHUGAI SEIYAKU KK.
KISHIMOTO T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kishimoto T, Nagasawa T,
```

```
remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockcut mouse, it becomes possible to prepare remedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. It is also possible to establish methods for treatment with the use of these remedies
                                                                                                                                                                                                                                                                                                                                                                                                       GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                816
                                                                                                                                                                                                                                                                                                 CIGCACCIGICAGAGGCGACCICCTCTIGICALL
                                                                                                                                                                                                                                                                                                                                               GCCATGGCTGACTGGCTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                               351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GIGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         969
                                                                                                                                                                                                                                                                                                                                                                GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTGGCGTCTGGATCCCTGCTGCTGCTGATTCCCGACTTCATCTTTGCCAACG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGAAGCGCAAAGCCCTCAAGACCACAGTCATCCTCCATCCTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGGTCATCCTCCTGTTACTGCATCATCTCTAAGGTGTCACACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTGTCATCCTGTCTGCTATTGCATTATCATCTCCAAGCTGTCACACTCCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA
                                                                                                                                                                                                                                                                                 1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                     15;
                                                                                                                                                                                                                    Query Match
Pest Local Similarity 85.8%; Pred. No. 1e-136;
Matches 592; Conservative 0; Mismatches 83; Indels 15;
                                                                                                                                                                                        Sequence 1588 BP; 396 A; 375 C; 334 G; 483 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCCACTGTTGCCTGAACCCCATCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             817
                                                                                                                                                                                                                                                                                                                232
                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                           292
                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                        352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                            상 점
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    · & 8 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
```

Search completed: May 17, 2004, 06:37:05 Job time : 298.894 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

May 17, 2004, 05:52:09 ; Search time 55.2446 Seconds (without alignments) 6931.281 Million cell updates/sec Run on:

US-09-367-052-3 690 1 ctgcacctgtcagtggctga......gcctgaaccccatcctat 690 Title: Perfect score: Sequence:

IDENTITY\_NUC Gapop 10.0 , Gapext 1.0 Scoring table:

682709 segs, 277475446 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Issued\_Patents\_NA:\*
1: /cgn2\_6/ptodata/2/ina/5A\_COMB.seq:\*
2: /cgn2\_6/ptodata/2/ina/5B\_COMB.seq:\*
3: /cgn2\_6/ptodata/2/ina/6A\_COMB.seq:\*
4: /cgn2\_6/ptodata/2/ina/6B\_COMB.seq:\*
5: /cgn2\_6/ptodata/2/ina/PCTUS\_COMB.seq:\*
6: /cgn2\_6/ptodata/2/ina/PCTUS\_COMB.seq:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Description	123	45,	4	45,	45,	5, 7	121	14,	4,	m	m	'n	m	'n	'n	'n	m	'n	65,	ý	'n	'n	5, Appl	ď,	'n	'n	Sequence 5, Appli
ID	-09-016-434-1	US-08-153-848-45	299	1-337B-4	~	7	US-09-023-655-1213	-60-	US-08-202-056-4	-08-076-0	-08-701-265-	-08-284-586-	-47	-08-802-627A	US-08-801-238-3	-08-801-228-	-104-296-	PCT-US94-06380-2	-09	-202	-08-076-093A		-08	-08-805-478-	US-08-802-627A-5	US-08-801-238-5	US-08-801-228-5
DB	4	-	m	4	ហ	ਚਾ	4	4	-	-	-	N	~	~1	~1	~	m	Ŋ	4	-	-	-	N	~	~	7	0
Length	1225	1317	1317	1317	1317	1664	1664	1679	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1119	1679	1679	_	-	1679	1679	1679	1679
% Query Match	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	21.7	21.7	7	Н	Н	П	21.7	-	
Score	17	7	17	17	7	7	17	7	7	17	7	517.2	7	17	17	17	7	17	150	150	150	150	150	150	150	150	150
Result No.	1	(2)	m	4	'n	φ	7	æ	σ'n	10	11	12	13	14	15	16	17	18			21						

Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli Appli
Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Seq
US-09-104-296-5 PCT-US4-06580-3 US-08-982-493-7 US-08-628-655-1 US-09-170-496D-199 PCT-US5-03032-2 US-08-076-033A-1 US-08-410-451-1 US-08-410-451-1 US-08-410-455-1 US-08-410-455-1 US-08-410-455-1 US-08-410-455-1 US-08-410-455-1 US-08-410-456-1 US-08-410-456-1 US-08-410-456-2 US-08-410-456-2 US-08-410-456-2 US-08-410-456-2 US-08-410-456-2 US-08-410-456-2 US-08-410-456-2
$\omega \otimes \omega \otimes \omega + $
1679 28118 28118 28119 11119 11119 11933 11933 11933 11933 11933 11933
7.7.7.7.000000000000000000000000000000
150 150 150 150 150 150 150 150 150 150
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

### ALIGNMENTS

Matches

Version #1.25

Page

SOFTWARE: Patentin Release #1.0, Vers
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/153,848
FILING DATE:
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/97,452
FILING DATE: 17-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: NO. 5759804and, Greta E. REGISTRATION NUMBER: 31,302
ATTORNEY/AGENT INFORMATION:
TELEPHONE: (312) 474-6300
TELEFAX: (312) 474-6300
TELEFAX: (312) 474-6300
TELEFAX: (312) 474-630
TELEFAX: (312) 474-630
TELEFAX: (312) A74-630
TELEFAX: (312) A74-630 Query Match
Best Local Similarity 85.8
Matches 592; Conservative NAME/KEY: CDS ; LOCATION: 201..1211 US-08-153-848-45 a ò 9 9 316 120 601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660 317 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA 376 377 GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGCTGGACCGCTACCTGGCC 436 437 ATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGTAT 496 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGGTCTCATCCTGCCCGGC 420 602 GACTIGIGGGIGGIIGIGITICCAGIITICAGCACAICAIGGIIGGCCIIAICCIGCCIGGI 661 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 600 782 CIGCCTIACATIGGGAICAGCAICGACTCCTICAICCTGGAAAICATCAAGCAA 841 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180 GIGGGCGICTGGAICCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 300 497 GTTGGCGTCTGGATCCCTGCTGCTGATATTCCCGGACTTCATCTTGCCAACG-- 554 301 AGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360 9 257 crecaccrercaeredeceaecrecrerriereareaecerrecerredecaeridar GCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 15; TTCCACTGTTGCCTGAACCCCATCCTCTAT 690 902 ITCCACTGTTGTCTGAACCCCATCCTCTAT 931 0; Mismatches 19 121 241 555 481 541 661 d ò g ઠે g ò 셤 à g ઠ a ò ద õ g 8 Db ò g ઠે g ઠ g

121 Greancereracageagegracicarecrageerreareagecragecergaceages 241 GIGGGGTCTGGATCCCAGCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 300 421 ATCGTCATCCTCTCCTGTTACTGCATCATCTTTAAGCTGTCACACTCCAAGGGCCCAC 480 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 420 601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660 447 geceriegeaaactigeractitigegaactitectargeaagecagecargetearchecae 685 -------rcadrgaddcadardacadararicrdrgadddciocricraddd 567 ATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT 61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACGGCCTTTACCCCGAT CIGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 541 912 481 8 6 8 g g В 8 8 ò 8 à g RESULT 2
US-08-153-648-45

US-08-153-648-45

Sequence 45, Application US/08153848

Patent No. 5759804

GENERAL INFORMATION:

APPLICANT: Gray, Patrick W.

APPLICANT: Schweikart, Vicki L.

TITLE OF INVENTION: No. 5759804el Seven Transmembrane Receptors

NUMBER OF SEQUENCES: 64

CORRESPONDENCE ADDRESSE:

ADDRESSEE: Bicknell

STREET: G300 Sears Tower, 233 South Wacker Drive

CITY: Chicago

STATE: 111nois

COUTTN: USA

360

731

540

ZIP: 60606 COMPUTER READABLE FORM: MEDIUM TYPE: Ploppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS

626

446 120

1 CIGCACCIGICAGIGGCIGACCICCITITGICAICACACICCCCTICIGGGCAGIIGAI

75.0%; Score 517.2; DB 1; Length 1317; 85.8%; Pred. No. 6e-140; tive 0; Mismatches 83; Indels 15;

```
Sequence 45, Application US/09088337B

Patent No. 6348574

GENERAL INFORMATION:
GRAY, Patrick W.
Schweikart, Vicki L.
TITLE OF INVENTION: No. 6348574el Seven Transmembrane Receptors NUMBER OF SECUNDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Borun
STREET: 6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661 TTCCACTGTTGCCTGAACCCCATCCTCTAT 690
1032 TTCCACTGTTGTCTGAACCCCATCCTCTAT 1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/088,3378
FILING DATE: 01-Jun-1998
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/153,848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIF: 66606
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Chicago
STATE: Illinois
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-088-337B-45
                                                                                                                                                                                                                                                                                                                                685
                                                              121
                                                                                               ద
                                                                                                                                   ð
                                                                                                                                                                        요
                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                            ò
446
                                                      RESULT 3

RESULT 3

US-09-299-843A-45

Sequence 45, Application US/09299843A

Patent No. 6107475

GENERAL INFORMATION:

APPLICANT: Godiska, Ronald

APPLICANT: Godiska, Voicki L.

TITLE OF INVENTION: No. 6107475el Seven Transmembrane Receptors

NUMBER OF SEQUENCES:

ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &

ADDRESSEE: Borun

STREET: 6100 Sears Tower, 233 South Wacker Drive

CITY: Chicago

STATE: Illinois

CONTRY: USA

ZIP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         387 crócaccrórcagicaccaaccrócrórrigicarcacacricécricragacaginaar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1317;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 60606
COMPUTER READABLE FORM:
MEDIUM TYEE: Floppy disk
COMPUTER: IBM FC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/299,843A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 75.0%; Score 517.2; DB 3; Best Local Similarity 85.8%; Pred. No. 6e-140; Matches 592; Conservative 0; Mismatches 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/09/29,843A
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 09/088,337
FILING DATE: 01-JUN-1998
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/153,848
FILING DATE: 17-NOV-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/977,452
ATTORNEY/AGENT INFORMATION:
NAMM: J11 E. Uhl
REGISTRATION NUMBER: 43,213
REFERENCE/DOCKET NUMBER: 27866/32059B
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 45:
SEQUENCE CHARACTERISTICS:
LENGTH: 1317 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    201..1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-299-843A-45
                    972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

```
972 GGGTGTGAGATTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC 1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         912 CIGCCTIACTACATIGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA 971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601 GGATGTGACTICGAGAGCATIGTGCACAAGTGGATCTCCATCACAGAGGCCTCGCCTTC 660
                                                                                                                                                                                                                                             626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421 ATCGTCATCCTCTCTGTTACTGCATCATCATCTTCTAAGCTGTCACACTCCAAAGGGCCAC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              851
241 GIGGGCGICIGGAICCCAGCCCICCICCIGACIAIACCIGACITICAICITIGCCGACGIC 300
                                                                                                                                                                                                                                                                                                                                                      684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        852 CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                                                                                  627 GTTGGCGTCTGGATCCCTGCTGCTGACTATTCCCGACTTCATCTTTGCCAACG--
                                                                                                                                                                                                                                                                                                                                                                                                                                            ------TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361 AGCCTGTGGATGGTGTGTTTCAATTCCAGCATATAATGGTGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                792 ATTGTCATCCTGCTGCTATTGCATTATCATCTCCCAAGCTGTCACCTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    732 gactrigitégerdégitérériértékeritékeckirártákitártégectirártésítésértégi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                          301 AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
```

1032 TICCACTGTTGTCTGAACCCCATCCTCTAT 1061

셤

```
, NAME/KEY: CDS
; ECCAPION: 201.1211
; SEQUENCE DESCRIPTION: SEQ ID NO: 45:
US-09-088-337B-45
                                                                                    TOPOLOGY: linear MOLECULE TYPE: cDNA
```

셤 à g ò g ò g  $\delta$ a ઠે a ò g ò

```
387 CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCCAGTTGAT 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 GCCATGGCTGGCTGGTTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATGTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCAACCICTACAGCAGCGTTCTCAICCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       507 GICAACCICTACAGCAGTGICCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC 566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 ATTGTCCACGCACCAAGAGGTCAAAGGCCAAAGGAAACTGCTGGAAAAGGCAGTCTAT 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           567 ATCGTCCACGCCACCCACGCCACGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTTAT 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660
                                                                                                                                                                                                                                                                                                                                                             447 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA 506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 GIGGGCGICTGGAICCCAGCCCICCTCATACCIGACTICATCTITGCCGACGIC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        627 GTTGGGGTCTGGATCCCTGCTGCTGCTGATTCCCGACTTCATCTTGCCAACG-- 684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301 AGCCAGGGGACATCAGTCAGGGGGATGACAACATCTGTGACCGCCTTTACCCCGAT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           685 ------ricagreaderdacadardarararcreredececrreracecaar 731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421 ATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACCACCAAGGGCCAC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     852 cadaadcocaadoccercaadaccacacaercarcercarcerodocriterrodocerorido 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CIGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTGGGAGTCATCAAGCAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     912 CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATGAAGCAA 971
                                                                                                                                            1 CTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT 60
Query Match 75.0%; Score 517.2; DB 4; Length 1317; Best Local Similarity 85.8%; Pred. No. 6e-140; Matches 592; Conservative 0; Mismatches 83; Indels 15; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  972
```

TICCACTGITGCCTGAACCCCATCCICTAI 690

661

ઠ g Q Q

446

61 GCCATGGCTGACTGGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 447 eccerescaaacresractricesaacriccraresaaseseserccarercareaca 121 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 507 GICAACCICTACAGCAGTGICCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC 1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT PGT-US93-1153-45

PGT-US93-1153-45

Sequence 45, Application PC/TUS9311153

GENERAL INFORMATION:
APPLICANT: Godiska, Ronald
APPLICANT: Godiska, Ronald
APPLICANT: Godiska, Ronald
APPLICANT: Schweikart, Vicki L.
TATLE OF INVENTION: Novel Seven Transmembrane Receptors
NUMBER OF SEQUENCES:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
ADDRESSEE: Backnell
STREET: Golo Sears Tower, 233 South Wacker Drive
CITY: Chicago
STREET: Golo Sears Tower, 233 South Wacker Drive
CITY: Chicago
STREET: Bar PC compatible
COMPUTER READBLE FORM:
MEDIUM TYPE: PLOPSY Misk
COMPUTER READBLE FORM:
MEDIUM TYPE: PLOPSY Misk
COMPUTER READBLE FORM:
MEDIUM TYPE: PLOPSY Misk
COMPUTER: Patentln Release #1.0, Version #1.25
CURRAYT APPLICATION NUMBER: PCT/US93/11153
FILLING DATE: 1NOV-1992
ATTOCKNEY ADDRICATION NUMBER: 35.302
REPERENCE/POCKET NUMBER: 35.302
TELERY SEGION OF SEQIEN OF SEGIEN OF SEGIEN SEGIENCES GRANGTION
TELERY SEGIENCE/POCKET NUMBER: 35.302
TELERY SEGIENCE/POCKET NUMBER: 35.302
TELERY SEGIENCE/POCKET NUMBER: 35.302
TELERY SEGIENCE/POCKET NUMBER: 35.302
TELERY SEGIENCE/POCKET NUMBER: 31.794
TELERY SEGIENCE/POCKET NUMBER: 35.302
TELERY SEGIENCE/POCKET NUMBER: 35.302 75.0%; Score 517.2; DB 5; Length 1317; 85.8%; Pred. No. 6e-140; tive 0; Mismatches 83; Indels 15; Best Local Similarity 85.8 Matches 592, Conservative ; NAME/KEY: CDS ; LOCATION: 201..1211 PCT-US93-11153-45 Query Match ò 8 g ò

PRICE APPLICATION DATA: APPLICATION NUMBER: FILING DATE: RESULT 7 US-09-023-655-1213 481 541 109 421 909 셤 ઠ 셤 õ 셤 ò 셤  $\delta$ 임 ઠ ద δ g  $\dot{\delta}$ a 8 셤 972 GGGIGIGAGTTIGAGAACACIGIGCACAAGIGGATTICCAICACCAAGGCCCTAGCTITC 1031 540 900 099 GCCATGGCTGACTGGTACTTTGGGAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120 180 487 361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 420 480 911 971 367 9 GIGGGCGICTGGAICCCAGCCCICCTCCTGACTAIACCIGACTICAICTITGCCGACGIC CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACGGCTACCTGGCC GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC -----TCAGTGAGGCAGATGACAGATATATCTGTGACGCTTCTACCCCAAT CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA GGATGTGACTTCGAGGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 421 ATCGTCATCTTCTTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC 15; Indele Query Match 75.0%; Score 517.2; DB 4; Best Local Similarity 85.8%; Pred. No. 6.7e-140; Matches 592; Conservative 0; Mismatches 83; Sequence 5, Application US/09582224A
Sequence 5, Application US/09582224A
Setent No. 6429308
GENERAL INFORMATION:
APPLICANT: IUJIMA, Osemu
APPLICANT: GOTO, Takeshi
APPLICANT: SHIMADA, Takeshi
TITLE OF INVENTION: HIV Infection Inhibitors
FILE REPERENCE:
CURRENT APPLICATION NUMBER: US/09/582,224A
CURRENT APPLICATION NUMBER: US/09/582,224A
PRIOR FILING DATE: 1999/11/24
PRIOR FILING DATE: 1999/11/24
NUMBER OF SEQ ID NOS: 5
SOFTWARE: Microsoft Word
SEQ ID NO 5
LENGTH: 1664 1032 TICCACTGTTGTCTGAACCCCATCCTCTAT 1061 TTCCACTGTTGCCTGAACCCCATCCTCTAT 690 TYPE: DNA
CRGANISM: Artificial Sequence
FATURE:
OTHER INFORMATION: CDNA of CXCR4
US-09-582-224A-5 241 627 685 481 541 912 601 61 g ద 8 8 8 8 8 8 6 6 6 8 & 8 ⋧ 6 6 6 강 음

Sequence 1213, Application US/09023655

Patent No. 6607879

Patent No. 6607879

GENERAL INFORMATION:
APPLICANT: Cocks, Benjamin G.
APPLICANT: Susan G. Stuart
APPLICANT: Jeffrey J. Seilhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL GENE
TITLE OF INVENTION: EXPRESSION
NUMBER OF SEQUENCES: 1508
CORRESPONDENCE ADDRESS:
ADDRESSEE: 1174 PORTER DRIVE
CITY: PALO ALTO
STREET: 3174 PORTER DRIVE
COUNTRY: USA
COUNTRY: USA
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Nord Perfect G.1 for Windows/MS-DOS 6.2
COMPUTER: Word Perfect G.1 for Windows/MS-DOS 6.2
COMPUTER: Word Perfect G.1 for Windows/MS-DOS 6.2
CURRENT APPLICATION NUMBER: US/09/023,655
FILING DATE: HEREWITH
CONTRY: USA
COMPUTER: WORD DATA:
COMPUTER: W 547 605 360 420 712 480 772 540 832 600 892 952 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC ATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCCAC CAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTTTTTGCCTGG CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 833 creccrracracarregearcaecarceacrecrrearecreeredaaarcareaaeaa GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 488 ATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAGGTGCTAT 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-0001
TELECOMMUNICATION INFORMATION:

```
547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCATGGCTGACTGGTACTTTGGGAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GIGGGCGICTGGAICCCAGCCCICCICCTGACIAIACCIGACTICAICTITGCCGACGIC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301 AGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCGGAT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 653 gacrneredegredricherrockerrockerrokeckranegriedecerrarcereder 712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAAGGGCCAC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCGTTTTGGGAGTCATCAAGCAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA 892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            degranda de la compana de la companio del companio de la companio de la companio del companio de la companio della companio de la companio de la companio della companio de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GICAACCICTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCAACCTCTACAGCAGTGTCTCATCTGGCTTCATCAGTCTGGACCGCTACCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGAAGCGCAAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     crecaccrercaggeceaccrecrerrigicarcacecrecriteresecacridar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCGTCCACCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -------rcacreadacadardacadarararcrereadacecriciacecaar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15;
                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 75.0%; Score 517.2; DB 4; Length Best Local Similarity 85.8%; Pred. No. 6.7e-140; Matches 592; Conservative 0; Mismatches 83; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TICCACTGITGCCTGAACCCCAICCTCTAT 690
                                                                                                                       TELEPHONE: (650) 855-055
TELEPAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

241 GIGGGGGTCTGGATCCCAGCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 300

301 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT

500 ATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT

CIGCACCIGICAGIGGCGGACCICCICITIGICALCACGCITCCCTICTGGGCAGITGAT GCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAACT GCCGTGGCAACTGGTACTTTGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA GICAACCICTACAGCAGCGITCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 440 GICAACCICIACAGCAGIGICICICAICCIGGCCIICAICAGICIGGACCGCTACCIGGCC 

61

ò 원 121

g ò

181

8

ठ

셤

셤 ð 셤

 $\overset{\diamond}{\delta}$ 

CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT

15;

Score 517.2; DB 4; Length Pred. No. 6.7e-140; 0; Mismatches 83; Indels

Query Match Best Local Similarity 85.8%; Matches 592; Conservative

APPLICANT: van Kooyk, Yvette
APPLICANT: Geijenbeck, Tneo
TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF:
TITLE OF INVENTION: CELLS
FILE REPERENCE: 1049-1-017
CURRENT APPLICATION NUMBER: US/09/517,605
CURRENT FILING DATE: 2000-03-02
NUMBER OF SEQ ID NOS: 17
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 14
LENGTH: 1679
TYPE: DNA
CRGANISM: Homo sapiens
US-09-517-605-14

Q

------rckgrgkggckgargkgkgkgararcrgrgkgccgcrrcracccckar 664

665 gacıngilgiğinginginetikinin karındağı anan delinek erinan eti elektilik eri

361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC

ATCGTCATCCTCTCTTACTGCATCATCATCTTAAGCTGTCACACTCCAAGGGCCAC

421

à

d

481

ð 셤 8

```
TICCACTGTTGTCTGAACCCCATCCTCTAT
                                                                          RESULT 9
US-08-202-056-4
; Sequence 4, Application US/08202056
; Patent No. 5440021
; GENERAL INFORMATION:
```

Sequence 14, Application US/09517605 Patent No. 6391567 GENERAL INFORMATION: APPLICANT: Littman, Dan R. APPLICANT: Kwon, Douglas S.

1

-09-517-605-14

601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC

845 creccriacracarresearcascarceacricerrerecreseaarcareaacaa 904

g

CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTGGGAGTCATCAAGCAA

421 ATGGTCATCCTCTCTGTTACTGCATCATCATCTTAAGCTGTCACACCCACAGGGCCACA80

ò

T111.0-700-/00-60-81

100 TT TO TO 101 THE TOOL

562 GTIGGCGTCTGGAICCCTGCCTCCTGCTGATTCCCCGACTTCATCTTTGCCAACG-- 619 620 -------TCAGTGAGGCAGATGACAGATATCTGTGACGCTTCTACCCCAAT 666 61 GCCATGGCTGACTGGTACTTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120 382 GCCGTGGCAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA 441 241 GIGGGCGTCTGGAICCCAGCCCTCCTCCTATALCCTGACTTCATCTTTGCCGACGTC 300 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360 442 GICAACCTCTACAGCAGIGICCTCAICCTGGCCTICAGTCTGGACCGCTACCTGGCC 501 667 gactrictecerectrereretrecaertreaceaeateateatrectrecertratectecere 1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT 60 322 CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTTTGGGCAGTTGAT 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 121 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGGTACCTCGCC Indels 15; Gaps Length 1737, Query Match
75.0%; Score 517.2; DB 1;
Best Local Similarity 85.8%; Pred. No. 6.8e-140;
Matches 592; Conservative 0; Mismatches 83; d QQ ò à ઠે ઠે

786	906			•	ri
SGGCCAC TGCTGG	CAAGCAA          CAAGCAA         				Gaps
TTCCAAC	AGTCATC			7	1737;
retcacac ragctttc	rtttgggk         rcctggar rcacagac	Receptors			Length Indels
ATTOTCATECTICATECTATIOCATIATCATCTCCAAGCTGTCACACTCCAAGGGCAC CAAAGCGCAAGGCCTCAGAAAGACAGACAGACAGGACAG	0-0 0-0 0-0 0-0	Oy 661 TTCCACTGTTGCCTGAACCCCATCCTTAT 690  Db 967 TTCCACTGTTGTCTGAACCCCATCCTCTAT 996  RESULT 10  US-08-076-093A-3  Sequence 3, Application US/08076093A  Sequence 3, Application US/08076093A  Setent No. 5543503  GENERAL INFORMATION: APPLICANT: Lee, James APPLICANT: Lee, James APPLICANT: Hebert, Caroline APPLICANT: Hebert, Caroline APPLICANT: Hebert, Caroline APPLICANT: An Kim, K. APPLICANT: Hebert, Caroline APPLICANT: An Kim, K. ATTIR OF INVENTION: An Libodies to Human PF44 Recent	OF SEQUENCES: 6 SONDENCE ADDRESS: SONDENCE ADDRESS: TI 460 Point San Bruno Blvd South San Francisco South San Francisco RY: California RY: USA READABLE FORM: M TYPE: 3.5 inch, 1.44 Mb floppy disk TTRN: SYSTEM: PC-DOS/MS-DOS RARE: WinPetin (Genentech) APPLICATION NOMBER: US/08/076,093A GO DATE: 1040-1993	10782 77211 706P2 ON:	Query Match 75.0%; Score 517.2; DB 1; Le Best Local Similarity 85.8%; Pred. No. 6.8e-140; Matches 592; Conservative 0; Mismatches 13; Ir
727 481 0		661 ] 967 ] 967 ] 1 10 8 -0.76 - 0.93A - 1.00 - 0.93A - 1.00 - 0.93A - 1.00 - 0.93A - 1.00 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 - 0.90 -	NUMBER OF SE CORRESPONDEN ADDRESSES: STREET: 4 CITY: SOU STATE: CON CONPUTE: ABO COMPUTER RAD COMPUTER: OPERATING OPERATING CURRENT APPL APPLICATIO	PRICA APPLICAT APPLIC	ery Match st Local Si ches 592;
ය දු	8 8 8	OY DD RESULT 1. Pateu GEN 1. A		NI 108-08	Dut Ber Mat

```
GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CIGCACCIGICAGIGGCIGACCICCICIIIGICAICACACICCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 517.2; DB 1;
Pred. No. 6.8e-140;
0; Mismatches 83;
   CURRENT AFFLICATION NUMBER: US/08/701,265
PILING DATE: 22-AUG-1996
CLASSIFICATION: 424
PRIOR APPLICATION AUMBER: US/08/701,265
APPLICATION NUMBER: 08/076093
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
APPLICATION NUMBER: 07/877211
FILING DATE: 29-WAR-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, Richard B
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 76692
TELEFHONE: 415/952-981
TELEFHONE: 415/952-981
TELEFHONE: 415/952-981
TELEFROMEN: 415/952-981
TELEFROMEN: 107777-7168
TELEFROMEN: 10777-7168
TELEFROMEN: 10777-7168
TELEFROMEN: 10777-7168
TELEFROMEN: 10777-7168
TELEFROMEN: 10777-7168
                08/701,265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 85.8%;
Matches 592; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 1737 mucleotides
TYPE: Nucleic Acid
TYPE: Nucleic Acid
TYPE: TRANDEDNESS: Single
TOPOLOGY: Linear
US-08-701-265-3
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08
FILING DATE: 22-AUG-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         966
                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      847 cricciniaciacal regeneración de actical recretación a a confederal carcadecas 906
                                                                                                                                                                                                                                                                                                                                                                                                                                361 AGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGGTCTCATCCTGCCCGGC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACCACCAAGGGCCAC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                727 Atroncarccrerceracratracarrarcarccaaacracacacrecaaaaacacac
                                                                                     120
                                                                                                                                                    GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180
                                                                                                                                                                                     501
                                                                                                                                                                                                                                                        561
                                                                                                                                                                                                                                                                                          gredecercredarcccaecerccrecrecrataccreaetrearcreaetraceceaecere 300
                                                                                                                                                                                                                                                                                                                           driedecirciodarecerdecerecerdaerariededaeriearetriedeaaee-- 619
                                                                                                                                                                                                                                                                                                                                                           301 AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360
                                                                                                                                                                                                                                                                                                                                                                                              620 -------TCAGTGAGGCAGATGACAGATATATGTGTGACCGCTTCTACCCCAAT 666
                                                    381
                                                                                                                   382 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             907 GGGTGTGAGGATTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   787 cagaagcccaaagcccrcaagaccacagrcarccrcarccrescrrrrrrrcgcrrsc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTTCGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CIGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT
                                                                                                                                                                            GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGCTCTGGACCGCTACCTGGCC
                                                                                                                                                                                                                       CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                        Arcerccaceccaecaacaercagaeeccaaeeaacaaaeercrareecreaaaaeereerar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Churcharapai, Anan APPLICANT: Lee, James APPLICANT: Lee, James APPLICANT: Hebert, Caroline APPLICANT: Hoert, Caroline APPLICANT: Jin Kim, K. TITLE OF INVENTION: Antibodies to Human PF4A Receptors NUMBER OF SEQUENCES: 6 CORRESPONDENCE ADDRESS: ADDRESS: Genentech, Inc. STREET: 460 Point San Bruno Blvd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            967 irccacidirercidaacecearecitar 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661 TICCACIGITGCCIGAACCCCAICCICIAI 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy of COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3, Application US/08701265; Patent No. 5776457; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
US-08-701-265-3
                                                                                                                                                                                                                                                                                                                             295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                        502
                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                   H
                                                    322
                                                                                                                                                    121
                                                                                                                                                                                      442
                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                   ઠે
                                                                                                                  d
                                                                                                                                                  ò
                                                                                                                                                                                 g
                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                               ద
```

```
121 GICAACCICTACAGCAGCGITCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACTICIGICALITATION OF THE STREET OF THE STR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    727 Arrercarccrerccreariscarraccarratearcresascrercaeacrercearges
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421 ATCGTCATCCTCCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      322 criccaccricradrigaccaaccricriricricarcacciricregecacrigar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sez errescercresarcecrecerecerecres sacrarrecesacirearentia eda Ace--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ------readreadendardacadarararerdadacederreracedaar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361 AGCCIGIGGAIGGIGGIGGIGTITCAATICCAGCATATAATGGIGGGICTCATCCIGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         787 cadaadcocaagoccrcaagaccacacacacarcercercercerocerrereres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GECAACCECTACAGCAGTGTCCTCATCCTGGCCTTCATCAGCTCTGGACCGCTACCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Arcerceaceceaceacaercaeeceaaeeceaaeeaecrerreecreaaaaeereerea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                         15;
Length 1737;
```

120

381

501

561

420

619 360 480

360

561

480

540

726

900

```
442 GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC 501
                                                                                                                                                                                                                                                                             241 GTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        787 cadadecedadececreaagaceacaderearecrearecregerrrerresecretres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    847 CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAACAAA
                                                                                                                                                                                                                                                                                                                                                                 562 GTTGGCGTCTGGATCCCTGCCTGCTGACTATTCCCGACTTCATCTTTGCCAACG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      620 ------TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                667 Gactrioridedericitricite de de la caracterio de la ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            727 Atrigicarectgreciaciariscariatarearecaaseciateaeaeaeeeeae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGATGTGACTTCGAGGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                     502 Arcerccaccaccaacaercaacaeccaaeeaaecrerrescreaaaaeercrar
                                                                                                                                                                                                                                                                                                                                                                                                                                                     301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCGTCATCCTCTCTTACTGCATCATCTCTAAGCTGTCACACCTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         907 decididaentraadaacacrerecaeaaraearedarriceareaceaageceraeerire
                                                                                                      RESULT 13

US-08-05-478-3

Sequence 3, Application US/08805478

Patent No. 5874543

GENERAL INFORMATION:
APPLICANT: Churtharapai, Anan
APPLICANT: Lee, James
APPLICANT: Lee, James
APPLICANT: Jin Kim, K.

ITILE OF INVENTION: ANTIBODIES TO PF4A RECEPTOR
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZUGNIAN TO THE STANDARD FORM:

MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible COPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Wilbratin (Genencech) CURRENT APPLICATION DATA: APPLICATION DATA: 25-Feb-1997 CLASSIFICATION: 530 PRIOR APPLICATION DATA: 25-Feb-1997 CLASSIFICATION DAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rrccacrerrereaaccccarcrar 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 08/284586
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-UUN-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                 ò
                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                                                       \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ä
907 GGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC 966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         382 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTACACA 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels 15, Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1737;
                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3, Application US/08284586

Patent No. 5840856

GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: APPLICANT: APPLICANT: Hebert, Caroline
APPLICANT: APPLICANT: AN K.
TITLE OF INVENTION: Antibodies to Human PF4A Receptors
NUMBER OF SEQUENCES:
CORRESPONDENCES:
ADDRESSEE: Genentech, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 517.2; DB 2;
Pred. No. 6.8e-140;
0; Mismatches 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READBLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: 12M FC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/284,586
FILING DATE:
CLASSITCATION 1424
PRIOR APPLICATION NUMBER: US/08/076,093A
APPLICATION NUMBER: US/08/076,093A
APPLICATION NUMBER: US/08/076,093A
APPLICATION NUMBER: 07/810792
FILING DATE: 19-DEC-1991
ATTORNEY/AGDT INFORMATION:
APPLICATION NUMBER: 07/677211
FILING DATE: 29-MAR-1991
ATTORNEY/AGDT INFORMATION:
REFERENCE/DOCKET NUMBER: 706P2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-5530
TELEFRONEY/OFFIT NUMBER: 706P2
TELECOMMUNICATION INFORMATION:
TELEFRONEY/OFFIT NUMBER: 706P2
                                                                                                                                                                                          967 TICCACTGTTGTCTGAACCCCATCCTCTAT 996
                                                                                                                             661 TICCACIGITGCCIGAACCCCAICCICIAI 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Generical, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: LENGTH: 1737 nucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 85.8<sup>3</sup>
Matches 592; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: Nucleic Acid
STRANDEDNESS: Sing
TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX:
TELEX: 9:
                                                                                                                                                                                                                                                                                                                                                   RESULT 12
US-08-284-586-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                              g
                                                                                                                        à
                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
Sequence 3, Application US/08802627A

Batent No. 5892017

GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Lee, James
APPLICANT: Wood, William I.
ITITLE OF INVENTION: WULLEIC ACID ENCODING PF4A RECEPTOR
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSE: Genentech, Inc.
STREET: 460 Folit San Bruno Blvd
CITY: South San Francisco
STREET: 460 Folit San Bruno Blvd
CITY: South San Francisco
STREET: Jean Francisco
COUNTRY: USA
ZIP: 94080
COMPUTER READBLE FORM:
MEDIUM TYPE: 35 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OOFFRATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WINPAIN (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/802,627A
FILING DATE: 10-AUG-1994
FRICK APPLICATION DATA:
APPLICATION NUMBER: 08/284586
FILING DATE: 10-AUG-1994
FRICK APPLICATION NUMBER: 08/2803
FRICK APPLICATION NUMBER: 08/2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: P0706P2P1D2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-5530
TELEPHONE: 415/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEX: 910/31-7168
INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: LENGTH: 1737 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 85.8
Matches 592, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: Nucleic Acid
STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
TOPOLOGY: Li
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-802-627A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       382 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACAACA 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GICAACCICTACAGCAGCGIICICAICCIGGCCIIICAICAGCCIGGACCGGIACCICGCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 GTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 AGCCTGTGGGATGGTGGTTGTTTCAATTCCAGCATATAATGGTGGGTCTCCATCCTGCCCGGC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           667 Gactricricardirerrecadrirecadeacarcarderrescentrarecreteres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCGTCATCCTCTCCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGCCCAC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 787 CAGAAGGGCCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG 846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGGAGTCATCAAGCAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               847 checchiachicarredearcacarcachicarcchicarcchecaarcarcarcaacaa 906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      907 GGGTGTGAGATTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC 966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     322 érecacciercagresceacerecretrirereareacerrecerredeseacrigar 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      620 -------readreadecadardacadarararcrereacecerreraceceaar 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CTGCACCTGTCAGTGGCTGACCTCTTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 75.0%; Score 517.2; DB 2; Length 17
Best Local Similarity 85.8%; Pred. No. 6.8e-140;
Matches 592; Conservative 0; Mismatches 83; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661 TICCACIGITGCCIGAACCCCCAICCICIAI 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rrccacrerrercreaaccccarccrear 996
                                                                                                                                                       P0706P2P1C1
                                       ATTORNEY AGENT INFORMATION:
NAME: LOVE, RICHARD INFORMATION:
NAME: LOVE, RICHARD INFORMATION:
REFERENCE/DOCKET NUMBER: 94,659
REFERENCE/DOCKET NUMBER: P0706
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415,225-530
TELERA: 910,737-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1/37 base pairs
TYPE: NUCLEIC ACID
STRANDENESS: SINGLE
                      APPLICATION NUMBER: 07/810782
                                                                                                                                                                                                                                                                                                                                                                                                             ; TOPOLOGY: Linear
US-08-805-478-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

240 381 441 121 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180 561 241 GIGGCCGICTGCARCCCTCCTCCTCARACTARACCTGACTTCATCTTTGCCGACGTC 300 562 GTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCATCTTTGCCAACG-- 619 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360 382 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA 322 crácaccrárcadrádeceaccrécicererridreareacecerecerrégadearraar 61 GCCATGGCTGACTGGTACTTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 442 GICAACCICIACAGCAGIGICCICAICCIGGCCIICAICAGCIGGACCGCIACCIGGCC 502 Arcerceaceceaceaeaercageceaageceaagaacrerregergaaaagergrerar 1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT Length 1737; Indels 75.0%; Score 517.2; DB 2; 85.8%; Pred. No. 6.8e-140; iive 0; Mismatches 83; 셤

RESULT 14 US-08-802-627A-3

디

```
; TYPE: Nucleic Acid
; STRANDEDNESS: Single
; TOPOLOGY: Linear
US-08-801-238-3
                                                                                                                                                                                                                                                                                             전
                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                              600
                             999
                                                                                 420
                                                                                                                                   726
                                                                                                                                                                                          480
                                                                                                                                                                                                                          727 ATTGTCATCCTGTCTGCTATTGCATATCATCTCCAAGCTGTCACACTCCAAGGGCCAC 786
                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                             846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               996
-----TCAGTGAGGCAGATGAGAGATATATCTGTGACGCTTCTACCCCAAT
                                                                                                                                                                                                                                                                                                   CAGAAGCGCAAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCGTCGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                              CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGTGTGTGGGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC
                                                                                 361 AGCCTGTGGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCGGGC
                                                                                                                       667 GACTICINATION OF THE CONTROL OF 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: USAN

ZIP: 94080

COMPUTER READABLE FORM:
MEDIUM TYER: 3.5 inch, 1.44 Mb floppy disi
COMPUTER: IBW PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: MAIDEAIN (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/801,238
FILING DATE: 19-Peb-1997
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/284566
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-UTN-1993
PRIOR APPLICATION NUMBER: 09/076093
FILING DATE: 11-UTN-1993
PRIOR APPLICATION NUMBER: 34,659
FILING DATE: 19-DEC-1991
ATTORNEY AGENT INFORMATION:
NAME: LOW-R. Richard B.
REGISTRATION NUMBER: 34,659
FILING TALECOMMUNICATION INFORMATION:
TELEPRAN: 415/525-530
TELEPRAN: 415/525-530
TELEPRAN: 115/225-5530
TELEPRAN: 11737 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCCACTGTTGCCTGAACCCCATCCTCTAT 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
US-08-801-238-3
IS-08-801-238-3
Sequence 3, Application US/08801238
Patent No. 5919896
GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Wood, William I.
TITLE OF INVENTION: PP4A RECEPTOR
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
CONNTRY: USA
                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                       787
                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       296
                                                                              ઠ
                                                                                                                       g
                                                                                                                                                                                    ò
                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
```

```
381
                                                                                                                                            120
                                                                                                                                                                               441
                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                   501
                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                          561
                                                                                                                                                                                                                                                                                                                                                            241 GIGGGGGTCTGGATCCCAGCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 300
                                                                                                                                                                                                                                                                                                                                                                                                619
                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGATGTGACTTCGAGAGCATTGTGCACAGAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                                    322 crecaccrercaeredeceaecrecrerrrereareaecrrecerreregecaerrear
                                                                                                                                                               382 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA
                                                                                                                                                                                                                                      442 GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC
                                                                                                                                                                                                                                                                                                            502 ATCGTCCACGCCACCAACAAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT
                                                                                                                                                                                                                                                                                                                                                                               562 GTTGGCGTCTGGATCCCTGCCTGCTGACTATTCCCGACTTCATCTTTGCCAACG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              787 CAGAAGGGCAAGGCCCTCAAGACCACAGACATCATCCTCATCCTTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             847 CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTCGAAATCATCAAGCAA
                                                                                                                                            61 GCCATGGCTGACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                 121 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                       ATCGTCATCCTCCTCTTACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541 CIGCCAIATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                    301 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGTGACCGCCTTTACCCCGAT
                                    Gaps
                                    15;
Length 1737;
                                    Indels
                                                                        1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCT
75.0%; Score 517.2; DB 2;
85.8%; Pred. No. 6.8e-140;
iive 0; Mismatches 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       riccacigrigecricaaccccarccrar 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCCACTGTTGTCTGAACCCCATCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Search completed: May 17, 2004, 16:15:43
Job time : 59.2446 secs
                 Best Local Similarity 85.8
Matches 592, Conservative
                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 727
   Query Match
```

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

May 17, 2004, 12:11:00 ; Search time 337.746 Seconds (without alignments) 9271.041 Million cell updates/sec	US-09-367-052-3 690 1 ctgcacctgtcagtggctgagcctgaacccatcctctat 690		residues
May 17, 2004, 12:11:00 ;	US-09-367-052-3 690 1 ctgcacctgtcagtggctga	IDENTITY NUC Gapop 10.0 , Gapext 1.0	2947324 segs, 2269024515 residues
Run on:	Title: Perfect score: Sequence:	Scoring table:	Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Total number of hits satisfying chosen parameters:

5894648

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Applications NA:* 6/ptodata/1/pubpna/US07	2: /cgnz_o/prodata/1/pubpna/US06 NEW FUB.seq:* 3: /cgnz_6/prodata/1/pubpna/US06 NEW PUB.seq:*	6/ptodata/1/pubpna/US06	6/ptodata/1/	6: /cgn2_6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*	 6/ptodata/1/	v	_6/ptodata/1	6/ptodata/1/	<pre>12: /cgn2_6/ptodata/1/pubpna/US09 NEW PUB.seq:*</pre>	6/ptodata/1/	6/ptodata/1/	_6/ptodata/1/	<pre>17: /cgn2_6/ptodata/1/pubpna/US10 NEW PUB.seq:*</pre>	1
Database :														

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Description	Sequence 1, Appli	Sequence 84, Appl	Sequence 125, App	Sequence 2, Appli	Sequence 741, App	Sequence 1235, Ap	Seguence 1213, Ap	Sequence 2143, Ap	Sequence 636, App	Sequence 1, Appli	Sequence 77, Appl	Sequence 80, Appl	Sequence 9, Appli	Sequence 912, App
ΩI	US-10-160-401-1	US-09-813-651B-84	US-10-014-322A-125	US-10-160-401-2	US-10-101-510-741	US-10-305-720-1235	US-10-641-643-1213	US-09-880-107-2143	US-09-960-706-636	US-10-372-683-1	US-10-440-464-77	US-10-211-462-80	US-10-181-906-9	US-10-342-887-912
DB	16	13	15	16	15	16	17	σ	10	16	16	13	13	13
% Query Match Length DB	5161	1059	1059	1059	1225	1225	1664	1670	1670	1670	1670	1679	1679	1679
% Query Match	75.1	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
Score	518	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2
Result No.	П	7	m	4	w	ø	7	ω	σι	10	11	12	13	14

Sequence 14, Appl Sequence 912, App Sequence 332, App Sequence 75, Appl Sequence 58, Appl	Sequence 177, App Sequence 20, Appl Sequence 459, App Sequence 3, Appli Sequence 3, Appli	Sequence 143, App Sequence 143, App Sequence 484, App Sequence 674, App Sequence 789, App	Sequence 687, App Sequence 2611, Ap Sequence 2611, Ap Sequence 2611, Ap Sequence 2611, Ap Sequence 1, Appli Sequence 1, Appli	Sequence 14955, A Sequence 14955, A Sequence 45, Appl Sequence 65, Appl Sequence 5, Appli Sequence 5, Appli Sequence 161, Appli Sequence 59, Appli
13 US-10-151-274-14 13 US-10-172-118-912 13 US-10-170-385-332 15 US-10-225-567A-75 15 US-10-021-660-58	16 US-10-341-434-177 10 US-09-971-322-20 15 US-10-101-510-459 9 US-09-104-063-3 13 US-10-666-689-3	9 US-09-870-755-143 11 US-09-751-708A-143 11 US-09-826-509-484 15 US-10-101-510-674 15 US-10-017-161-789	US-10-292-798-687 US-09-796-692-2611 US-10-040-862-2611 US-10-1057-4758-2611 US-09-953-692-1 US-09-953-692-1 US-09-953-717-1	13 US-10-085-783A-14955 16 US-10-242-555A-14955 15 US-10-237-563-45 15 US-10-237-563-45 15 US-10-251-365-65 9 US-09-104-063-5 13 US-10-66-689-5 12 US-09-997-722-161 15 US-10-225-567A-59
1679 1679 1679 1679	1679 1711 1711 1737 1737	1102 1102 1002 1023 1024	1076 421 421 421 1902	507 1119 1119 1679 2824 2824
75.0	75.0 75.0 75.0	74.7 74.7 7.4.3 73.2 67.5	7 6 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	26.9 26.9 21.3 21.7 21.7 21.7 21.7
517.2 517.2 517.2 517.2 517.2	517.2 517.2 517.2 517.2	515.6 515.6 512.4 505.2 466	203.2 303.2 303.2 303.2 303.2 276.4	185.6 185.6 180 180 180 180 180
11 11 11 11 11 11 11 11 11 11 11 11 11	01222	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		6 6 6 6 4 4 4 4 4 4 4 4 4 4 4 4 6 6 6 6

## ALIGNMENTS

```
US-10-160-401-1

US-10-160-401-1

Sequence 1, Application US/10160401

Publication No. US2030207281A1

GENERAL INFORMATION:

APPLICANT: Bentivegna, Steven C.

APPLICANT: Bentivegna, Steven C.

APPLICANT: Bentivegna, Steven C.

APPLICANT: Bentivegna, Steven C.

APPLICANT: Roshy, Been

APPLICANT: Monroe, Glen

APPLICANT: Monroe, 200-0-

Glen

APPLICANT: Monroe, Glen

CURRENT FILING DATE: 2000-04-13

PRIOR APPLICATION NUMBER: PC/4-13

PRIOR APPLICATION NUMBER: PC/00-04-13

PRIOR APPLICATION NUMBER: US/60/197,025

PRIOR APPLICATION NUMBER: US/60/197,025

PRIOR APPLICATION NUMBER: US/60/197,025

PRIOR APPLICANTION NUMBER: US/60/197,025

PRIOR APPLICATION NUMBER: US/60/197,025

PRIOR APPLICATION NUMBER: US/60/197,025

PRIOR APPLICANTION: Sapiens

FRATURE:

NAME/KEY: allele

COCATION: (3118)...(3118)

OCHER INFORMATION: PSI: polymorphic base cytosine or thymine FEATURE:

NAME/KEY: allele

COCATION: (3952)..(3952)

CTHER INFORMATION: PS3: polymorphic base cytosine or thymine FEATURE:

NAME/KEY: allele

COCATION: (3952)..(3952)

CTHER INFORMATION: PS3: polymorphic base cytosine or thymine FEATURE:

NAME/KEY: allele

COCATION: (3952)..(3952)

CTHER INFORMATION: PS3: polymorphic base cytosine or thymine FEATURE:

CHERRICANTION: PS3: polymorphic base cytosine or thymine PS3: polymorphic base cytosine
```

```
FILE REFERENCE: CNS-007

CURRENT APPLICATION NUMBER: US/09/813,651B

CURRENT FILING DATE: 2001-03-20

PRIOR APPLICATION NUMBER: US 60/190,946

PRIOR FILING DATE: 2000-03-21

PRIOR FILING DATE: 2000-03-21

PRIOR PILING DATE: 2000-03-21

PRIOR PILING DATE: 2000-03-21

PRIOR PILING DATE: 2000-03-21

PRIOR FILING DATE: 2000-03-21

SEQIEM OF SEQ ID NOS: 85

SOFTWARE: Patentin version 3.0

SEQIEM NO 84
                                                                                                                                                                                    TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                  FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                        3401 CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT 3460
                                                                                                                                                                                                                                                                         3461 GCGGGGGAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATACACA 3520
                                                                                                                                                                                                                                                                                                                                                                                       -----TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT 3745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3986 GGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACYGAGGCCCTAGCTTTC 4045
                                                                                                                                                                                                                                                                                                                                          3521 Greaacereracadeagrerecrearecreaecerreareagrerasacegeraceradee 3580
                                                                                                                                                                                                                                                                                                                                                                                                                                             3806 AITGICATCCAGCTGCTGCTATTGCATTATCATCTCCCAGGCTGTCACACTCCCAAGGGCCAC 3865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3866 CAGAAGCCCACAGACCACAGACCACCATCCTCGATCCTTCTTCGCCTGTTGG 3925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3926 CIGCCTTACTACATTGGGATCAGCATYGACTCCTTCATCCTCCTGGAAATCATCAAGCAA 3985
                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                               GTCAACCTCTACAGCAGCATTCTCATCCTGCCTTCATCAGCCTGGACCGGTACCTCGCC 180
                                                                                                                                                                                                                                                       GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                              GTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC_300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361 AGCCIGIGGAIGGIGGIGTITCAATICCAGCATATAATGGIGGGICTCATCCTGCCCGGC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCGTCATCCTCTCTGTTACTGCATCATCTTCTAAGCTGTCACACTCCAAGGGCCAC 480
                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGATGTGACTTCGAGAGCATTGTGCACAAAGTGGATCTCCATCACAGAGGCCCTCGCTTC
                                                                                                                                                                                                 1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                        Gapa
                                                                                                                                                                      15;
                                                                                                                                             Length 5161;
                                                                                                    or thymine
                                                                                                                                        Query Match 75.1%; Score 518; DB 16; Length 5 Best Local Similarity 85.7%; Pred. No. 1.4e-156; Matches 591; Conservative 2; Mismatches 82; Indels
FEATURE:

NAME/KEY: allele

COCATION: (4030)...(4030)

OTHER INFORMATION: PS4: polymorphic base cytosine of FEATURE:

NAME/KEY: allele

I LOCATION: (4262)...(4262)

OTHER INFORMATION: PS5: polymorphic base adenine of US-10-160-401-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TICCACTGTTGTCTGAACCCCAICCTCTAT 4075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TICCACTGITGCCTGAACCCCATCCTCTAT 690
                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                      8
8
                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                              සි දි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                             ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

```
120
                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                        291
                                                                                                                                                                                                                                                                351
                                                                                                                                                                                                                                                                                                                                         411
                                                                                                                                                                                                                                                                                                                                                                                                                  471
                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               876
                                                                                                                                                                                232 CTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                  292 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA
                                                                                                                                                                                                                                                                                                     121 GICAACCICIACAGCAGCGIICICAICCIGGCCIICAICAGCCIGGACCGGIACCICGCC
                                                                                                                                                                                                                                                                                                                             352 GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACGGCTACCTGGCC
                                                                                                                                                                                                                                                                                                                                                                             412 ATCGTCCACGCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAAGGTGGTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 GIGGOGICIGGAICCCAGCCCICCTCCTGACTAIACCTGACTTCAICTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        472 Gridecorcingariccinecrecinecreaciaricceaericarcinatedaace--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      530 -----TCAGTGAGGCAGATGACAGATATCTGTGACAGCTTCTACCCCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               637 ATTGTCATCCTGTCCTGCTATTGCATTATCATCTCCAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  697 CAGAAGGCCCTCAAGACCACACACACTCATCCTCGTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541 CIGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCTGCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CIGCACCIGICAGIGGCIGACCICCITITGICAICACACICCCCITCIGGGCAGITGAI
                                                                                                                 15;
                                                                             Length 1059;
                                                                           75.0%; Score 517.2; DB 13; Length
85.8%; Pred. No. 1.2e-156;
cive 0; Mismatches 83; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCCACTGTTGTCTGAACCCCATCCTCTAT
; LOCATION: (1)...(1059)
; OTHER INFORMATION: human CXCR4 gene
US-09-813-651B-84
                                                                       Query Match
Best Local Similarity 85.8<sup>3</sup>
Matches 592; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
G
```

Sequence 84, Application US/09813651B
Publication No. US20030018438A1
GENERAL INFORMATION
APPLICANT: Nestor, John
APPLICANT: Tan Hehir, Christina
APPLICANT: Kates, Steven
TITLE OF INVENTION: Binding Compounds and Methods for Identifying Binding Compounds

RESULT 2 US-09-813-651B-84

```
GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660
                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              292 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCCTGTCATCTACACA 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               errescencresarcecrecerecrescrearerarecesacricarerrasceaads-- 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361 AGCCTGTGGATGTGGTGGTGTTTCAATTCCAGCATATAATGGTGGGGGTCTCATCCTGCCCGGC 420
697 CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG 756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  352 GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACGCTACCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Greecementeceaecemectereaemaranemeaemeaeceme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         577 GACTTGTGGGTGTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCTGCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301 AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CTGCACCTGTCAGTGGCTGACCTCCTCTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    232 CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match 75.0%; Score 517.2; DB 16; Length 1059; Best Local Similarity 85.8%; Pred. No. 1.2e-156; Matches 592; Conservative 0; Mismatches 83; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2. Application US/10160401
Publication No. US20030207281A1
GENERAL INFORMATION:
APPLICANT: Genelseance Pharmaceuticals, Inc.
APPLICANT: Genelseance Pharmaceuticals, Inc.
APPLICANT: Genelseance Pharmaceuticals, Inc.
APPLICANT: Bieglecki, Karyn M.
APPLICANT: Monroe, Glen
APPLICANT: MONROE: Elieen
APPLICANT: WHH-0121US
FILE REFERENCE: WH-0121US
CURRENT APPLICATION NUMBER: US/10/160,401
CURRENT FILE OATE: 2001-04-13
PRIOR PLIUG DATE: 2001-04-13
PRIOR PLIUG DATE: 2001-04-13
PRIOR PLIUG DATE: 2000-04-13
NUMBER OF SEQ ID NOS: 31
SEQ ID NO 2
SEQ ID NO 2
SEQ ID NO 3
SEQ ID NO
                                                                                                                                                                                                                                                                                                                                          TTCCACTGTTGTCTGAACCCCCATCCTAT 906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-160-401-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                      757
                                                                                                                                                                                   601 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         472
                                                             541
                                                                                                                                                                                                                                                                                                       199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                         à
                                                                                                             8 6 8
                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                         Sequence 125, Application US/10014322A

Sequence 125, Application US/10014322A

Publication No. US20030167129A1

GENERAL INFORMATION:

APPLICANT: Wilson, Carol

APPLICANT: Wilson, Carol

APPLICANT: Atles, Steven

APPLICANT: Kates, Steven

APPLICANT: Kretenansky, John

TITLE OF INVENTION: Blinding Compounds and Methods for Identifying Binding Compounds

FILE REFREENCE: CNS-008

CURRENT APPLICATION NUMBER: US/10/014,322A

CURRENT FILING DATE: 2002-07-08

FRIOR APPLICATION NUMBER: US 09/813,651

PRIOR FILING DATE: 2001-03-20

PRIOR PELING DATE: 2001-03-20

NUMBER OF SEQ ID NOS: 126

SEQ ID NO 125

LENGTHAL 1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GICAACCICTACAGCAGCGTICTCAICCIGGCCTTCAICAGCCIGGACCGGTACCICGCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 412 ATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGAAAAGGTGGTCTAT 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 GIGGGCGTCTGGAICCCAGCCCTCCTCCTGACTAIACCTGACTTCATCTTTGCCGACGTC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301 AGCCAGGGGACATCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    352 GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GITGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGACTTCATCTTGCCAACG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -------rcagraaggragargacagararararcrargaccecrrcraccccaar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   577 GACTTGTGGGTGGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCTGCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 15; Length 1059;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 75.0%; Score 517.2; DB 15; Length Best Local Similarity 85.8%; Pred. No. 1.2e-156; Matches 592; Conservative 0; Mismatches 83; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; NAME/KEY: CDS
; LOCATION: (1)..(1059)
; OTHER INFORMATION: human CXCR4 gene
US-10-014-322A-125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
```

g 상 음

g ઠે 셤 ∂ à

g

 $\dot{\delta}$ d 8 8 à

781

721

900

9 841

```
Sequence 1235, Application US/10305720
Publication No. US20040010136A1
GENERAL INFORMATION:
TITLE OF INVENTION: Composition for the Detection of Signaling Pathway Gene Expression TITLE OF INVENTION: Composition for the Detection of Signaling Pathway Gene Expression TITLE OF INVENTION: Composition for the Detection of Signaling Pathway Gene Expression TITLE OF INVENTION: COMPOSITION OF SIGNATION OF CURRENT APPLICATION NUMBER: US/10/305,720
CURRENT PILING DATE: 1998-01-36
NUMBER OF SEQ ID NOS: 1490
SEQ ID NO 1235
IEBNOTH: 1225
                                                                                                                                                                                                                          842 GGGTGTGAGATTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     317 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 GIGGGCGTCTGGATCCCAGCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               377 GICAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGAAGCGCCAAGGCCCTCAAGACCACACACTCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                     CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    437 ATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT
CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           257 CTGCACCTGTCAGTGGCCGACCTCCTCTGTGTCATCACGCTTCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 GICAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 75.0%; Score 517.2; DB 16; Length 1225; Best Local Similarity 85.8%; Pred. No. 1.3e-156; Matches 592; Conservative 0; Mismatches 83; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
CRGANISM: Homo sapiens
FATURE:
NAME/KEY: misc_feature
CTHER INFORMATION: GenBank ID No. US20040010136A1 g189313
US-10-305-720-1235
                                                                                                                                                                                                                                                                                    TTCCACTGTTGTCTGAACCCCATCCTCTAT 931
                                                                                                                                                                                                                                                                     661 TTCCACTGTTGCCTGAACCCCATCCTCTAT 690
                                                                                                                                                                                                                                                                                                                                             RESULT 6
US-10-305-720-1235
                                                                                                                                                                             782
                                                                                                                                                                                                                                                                                                902
                            421
                                                                                                                   722
                                                                                                                                                  541
                                                                                                                                                                                                           601
                8 6 8 6 8 6
                                                                                                                                                                                               ò
                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 & 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ි දි
                                        969
                                                                      540
                                                                                                   756
                                                                                                                                                              816
                                                                                                                                                                                          316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 GTCAACCTCTACAGCAGCGTTCTCATCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    377 GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCGGG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              555 ------TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
           421 ATGTCATCCTCTGTTACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC
637 ATTGTCATCCTGTCTGCTATTGCATTATCATCTCCAAGCTCACACTCCAAGGGCCAC
                                                                                        CAGAAGCGCAAAGGCCCTCAAGACCACAGTCCTCCTCATCCTGGCTTTCGCCTGTTGG
                                                                                                                                                   757 CIGCCITACTACATGAGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  257 CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                      1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   75.0%; Score 517.2; DB 15; Length 1225;
85.8%; Pred. No. 1.3e-156;
ive 0; Mismatches 83; Indels 15;
                                                                                                                                                                                                                                                                                                                        RESULT 5
US-10-101-510-741

Sequence 741, Application US/10101510

Publication No. US2030148295A1

GENERAL INFORMATION:
APPLICANT: WAN, JACKSON

TILLE OF INVENTION:
FILE REFERENCE: 15117.0012

CURRENT FILING DATE: 2002-03-20

PRIOR APPLICATION NUMBER: 60/276,947

PRIOR APPLICATION NUMBER: 60/276,947

PRIOR APPLICATION NUMBER: 60/276,947

NUMBER OF SEQ ID NOS: 805

SOFTWARE: PATENTIN VET: 2.1

SEQ ID NO 741

LENGTH: 1225
                                                                                                                                                                                                                                                                     877 TICCACTGTTGTCTGAACCCCATCCTCTAT 906
                                                                                                                                                                                                                                                     TICCACTGITGCCTGAACCCCAICCTCIAI 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 85.8 Matches 592, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ) TYPE: DNA
) ORGANISM: Homo sapiens
US-10-101-510-741
                                                                                                 697
                                                                                                                                                                                                                                                   661
                                                                     481
                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
            දු දු
                                                            8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 6 6 6 6 6 6
                                                                                                                             ò
                                                                                                                                                   엄
                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                  ò
                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

120

180

009 99 661 480 721 781 782 checchhachachneagancaecanceachcentearcenegaancancaacaa 841 722 cagaagcecaaggcecteaagaceacagrearectearectearectegerricaregerries CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCCATCACAGAGGCCCTCGCCTTC Sequence 1213, Application US/10641643
Publication No. US20040077003A1
GENERAL INFORMATION:
APPLICANT: Cocks, Benjamin G.
GENERAL TILE OF INVENTION: Composition FOR THE DETECTION OF BLOOD CELL
TILE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL
UMMBER OF SEQUENCES: 1508 COMPUTER READABLE FORM:

MEDIUM TYPE: PLOPY disk

MEDIUM TYPE: PLOPY disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS

CURRENT APPLICATION NUMBER: US/10/641,643

FILING DATE: 14-Aug-2003

CLASSIFICATION NUMBER: CUNKNOWN>
PRIOR APPLICATION NUMBER: CUNKNOWN>

TILING DATE: CONKNOWN>

APPLICATION NUMBER: CUNKNOWN>

TILING DATE: CUNKNOWN>

ATTORNEY/AGENT INFORMATION:

NAME: Zeller, Karen J.

REGISTRATION NUMBER: PA-0001 US

TELEPHONE: (650) 845-0555

TELEPHONE: (650) 845-166

INFORMATION FOR SEQ ID NO: 1213:

SEQUENCE CHARACTERISTICS:

SEQUENCE CHARACTERISTICS: CORRESPONDENCE ADDRESS:
ADDRESSE: INCYTE PHARMACEUTICALS, INC.
STREET: 3174 PORTER DRIVE
CITY: PALO ALTO
STATE: CALIFORNIA
COUNTRY: USA TTCCACTGTTGTCTGAACCCCATCCTCTAT 931 661 TICCACTGTTGCCTGAACCCCATCCTCTAT 690 LIBRARY: GENBANK CLONE: 9219868 SEQUENCE DESCRIPTION: SEQ ID NO: 1213 TYPE: nucleic acid STRANDEDNESS: single TOPOLOGY: linear -10-641-643-1213 602 421 662 481 541 902 g à PP ò g ò g 8 g ò

```
180
                                                                                                                                                                                                                                                                                                                    300
                                                                                                                           120
                                                                                                                                                  368 GCCGTGGCAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATGTCACACA 427
                                                                                                                                                                                                                        487
                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                    547
                                                                                                                                                                                                                                                                                                                                                    605
                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      952
                                                                                            308 crecaccrercaeresceaccrecrerrrereareacecrrecerresseaserrear 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        892
                                                                                                                                                                                           121 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGGTACCTCGCC
                                                                                                                                                                                                                                                                                 488 ATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT
                                                                                                                                                                                                                                                                                                                      241 GIGGGCGICTGGAICCCAGCCTCCTGACTAIACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                          548 GTTGGCGTCTGGATCCCTGCCCCCCCCGCTGACTATTCCCGACTTCATCTTTGCCAACG--
                                                                                                                            GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                      428 GICAACCICIACAGCAGIGICCICAICCIGGCCIICAICAGICIGGAGCGCTACCIGGCC
                                                                                                                                                                                                                                                                                                                                                                                   301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      773 cagaagcocaagcocorcaagaccacacacrorcorcarcorgorrorrorrorrorgorros
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            606 ------TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCGTCATCCTCCTGTTACTCCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGGAGTCATCAAGCAA
   DB 17; Length 1664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
US-09-880-107-2143
US-09-880-107-2143
Sequence 2143, Application US/09880107
Sequence 2143, Application US/09880107
Sequence 2143.
GENERAL INFORMATION:
APPLICANT: HOTHE, Darci T.
APPLICANT: Scherf, Uwe
APPLICANT: Scherf, Uwe
TITLE OF INVENTION: Gene Expression Profiles in Liver Cancer
FILE REFERENCE: 44921-5028-WO
CURRENT APPLICATION NUMBER: US 60/211,379
PRIOR APPLICATION NUMBER: US 60/211,379
PRIOR APPLICATION NUMBER: US 60/211,379
PRIOR APPLICATION NUMBER: US 60/237,054
PRIOR FILING DATE: 2000-10-02
NUMBER OF SEQ ID NOS: 3950
                                 Indels
                                                                1 crecaccrercaereaccrecrerrrrercarcacrecerr
Score 517.2; DB 17
Pred. No. 1.5e-156;
0; Mismatches 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TICCACTGITGCCTGAACCCCATCCTAT 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       953 TICCACTGTTGTCTGAACCCCATCCTCTAT 982
   75.0%;
   Query Match
Best Local Similarity 85.8
Matches 592; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                            ద
                                                                                                                              ઠે
                                                                                                                                                           В
                                                                                                                                                                                           ò
                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                              ठ
                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ଚ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

US-10-641-643-1213

ddri.c-2co-/ec-ko-gn

THE WAY IS IS:54:42 2004

gradecercredateceaecercercredatararacredatrererererererereres 300 181 ATTGTCCACGCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGGTGAAAAGGCAGTCTAT 649 gacrigiedgiedriciericcadiricadcacarcardgirggccriariccidcriger CTGCCATATTATGTGGGGATCAGCATCGACTCCTTTCATCCTTTTGGGAGTCATCAAGCAA GCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT ATCGTCATCCTCTCTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC GTCAACCTCTACAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC Gaps Query Match 75.0%; Score 517.2; DB 10; Length 1670; Best Local Similarity 85.8%; Pred. No. 1.5e-156; Matches 592; Conservative 0; Mismatches 83; Indels 15; FEATURE: OTHER INFORMATION: Genbank Accession No. US20030134280A1 L06797 US-09-960-706-636 PRIOR APPLICATION NUMBER: 60/223,323, PRIOR FILING DATE: 2000-08-07, PRIOR APPLICATION NUMBER: 09/873,319 PRIOR FILING DATE: 2001-06-05, NUMBER OF SEQ ID NOS: 1124 SEQ ID NO 636 LENGTH: 1670 TYPE: DNA 541 ( 601 ( 364 424 544 Н 304 61 121 241 602 421 481 g ò d ద à g ð g 8 원 ઠે 셤 õ g ò 유 ò g à 유 8 480 540 828 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGGGTCATCAAGCAA 600 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660 61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120 423 180 483 240 543 601 360 648 420 649 GACTIGIGGGGGGGGTIGTGTTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGT 708 363 241 GIGGGCGICIGGAICCCAGCCCICCIGACIAIACCIGACITICAICTIIGCCGACGIC 300 9 304 CTGCACCTGTCAGTGGCCGACCTCCTCTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 1 CTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTCTGGGCCAGTTGAT Gaps 15; FEATURE: ; OTHER INFORMATION: Genbank Accession No. US20020142981A1 L06797 US-09-880-107-2143 Query Match
75.0%; Score 517.2; DB 9; Length 1670;
Best Local Similarity 85.8%; Pred. No. 1.5e-156;
Matches 592; Conservative 0; Mismatches 83; Indels 15; TTCCACTGTTGTCTGAACCCCATCCTCTAT 978 SOFTWARE: Patentin Ver. 2 SEQ ID NO 2143 LENGHT: 1670 TYPE: DNA ORGANISM: HOMO SADIENS 364 544 484 709 481 492 541 829 601 889 121 181 602 421 661

g

ద

ò

QQ ò

ò

g

ò g ð ДQ

QQ.  $\overset{\diamond}{\circ}$  g

ò

임

ò

g

 $\delta$ 

g

 $\delta$ g

 $\delta$ 

120

363

423 180 483 240

648 420 708 480 768 540 828

> Sequence 1, Application US/10372683 Publication No. US20040009171A1 GENERAL INFORMATION: APPLICANT: GERRITSEN, MARY E. RESULT 10 US-10-372-683-1

Sequence 636, Application US/09960706
Publication No. US20030134280A1
GENERAL INFORMATION:
APPLICANT: Munger, William E.
TITLE OF INVENTION: Identifying Drugs for and Diagnosis of Benign Prostatic Hyperplas
TITLE OF INVENTION: Gene Expression Profiles
FILE REPRENCE: 44921-5029-01US
CURRENT APPLICATION NUMBER: US/09/960,706
CURRENT PILING DATE: 2001-09-24

-09-960-106-636

009

948

TICCACTGITGCCIGAACCCCAICCICIAI 690 

949 661

ò

APPLICANT: PEALE JR., FRANKLIN V.
APPLICANT: WU, THOMAS D.
TITLE OF INVENTION: METHODS FOR THE TREATMENT OF CARCINOMA; TITLE OF INVENTION: METHODS FOR THE TREATMENT OF CARCINOMA; FILE REFERENCE: 19-28 RALP.
CURRENT APPLICATION NUMBER: US/10/372,683
CURRENT FILING DATE: 2003-02-21
PRIOR APPLICATION NUMBER: US 10/271,690
PRIOR APPLICATION NUMBER: US 60/344,534
PRIOR PILING DATE: 2001-10-18
NUMBER OF SEQ ID NOS: 49

15; Gaps Query Match 75.0%; Score 517.2; DB 16; Length 1670; Best Local Similarity 85.8%; Pred. No. 1.5e-156; Matches 592; Conservative 0; Mismatches 83; Indels 15;

TYPE: DNA; CORGANISM: Homo sapien US-10-372-683-1 LENGIH: 1670

장 · 음

g

g

ઠ

g

δ

ò

361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 420

g

ò

à 셤 à

q

ò

649 gacrrigidegriedricirericireckerirekeckeriegriegecerrarecereer ATCGTCATCCTCTCCTGTTACTGCATCATCATCTTAAGCTGTCACACTCCAAGGGCCAC 406 421

481 169

qq

8 8

828

600

540

708 480 768

829 CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAATCATCAAGCAA 889 GGGTGTGAGTTTGAGAACACTGTGCCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 541 601

948

g

ò

RESULT 11 US-10-440-464-77 ; Sequence 77, Application US/10440464

JAPELICANT: O'FARRELL. ANNE-MARIE

APPLICANT: O'FARRELL. ANNE-MARIE

APPLICANT: O'FARRELL. ANNE-MARIE

APPLICANT: WANNINGTO, ALYSSA

APPLICANT: WANNING, WILLIAM

APPLICANT: CHERRINGTON, JULIE

APPLICANT: SCHILLING, JIM

TITLE OF INVENTION: NOVEL BIOWARKERS OF TYROSINE KINASE INHIBITOR EXPOSURE

TITLE OF INVENTION: AND ACTIVITY IN MANMALS

TITLE OF INVENTION NUMBER: 60/380,872

FRIOR PELICATION NUMBER: 60/380,872

PRIOR APPLICATION NUMBER: 60/448,922

PRIOR APPLICATION NUMBER: 60/448,922

PRIOR FILING DATE: 2003-02-24

PRIOR APPLICATION NUMBER: 60/448,974

PRIOR FILING DATE: 2003-02-24

NUMBER: OF SEQ ID NOS: 185

SEQ ID NO 77

LENGTH: 1670 TYPE: DNA
CORGANISM: Homo sapiens
US-10-440-464-77

Gaps 15; Query Match
75.0%; Score 517.2; DB 16; Length
Best Local Similarity 85.8%; Pred. No. 1.5e-156;
Matches 592; Conservative 0; Mismatches 83; Indels

180 423 61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 424 GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC 1 CTGCACCTGTCAGTGGCTGACCTCCTCTTGTCATCACACTCCCCTTCTGGGCCAGTTGAT 121 GICAACCICIACAGCAGCGITCICATCCIGGCCITCATCAGCCIGGACCGGIACCICGCC g 엄  $\delta$ δ

ద 8

d

241 GregecercrigaArcccaecccrccrcacraraccrcacrrcarcrrrsccgacGrc ò ઠે g

------reagrandedendarianchararichereaccerreraccenar 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACGGCCTTTACCCCGAT ద

361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC

420

768

421 ATCGTCATCCTCTCTGTTACTGCATCATCATCTATAAGCTGTCACACTCCCAAGGGCCAC g 8 ò

481 CAGAAGCGCAAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTTGCCTGCTGG 769 cagaagcgcaaggcccrcaagaccacagrcarccrcarccrcarccragcrrcrrcgccrgrrcg ઠે 셤

00UI: --700-/05-80-80

```
661 TTCCACTGTTGCCTGAACCCCATCCTCTAT 690
                                                                                                                                                                                                                                                                                                                                        965 TTCCACTGTTGTCTGAACCCCATCCTCTAT 994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; SEQ ID NO 9
; LENGTH: 1679
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-181-906-9
                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 B 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 6
                                                   6 6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                          Sequence 80, Application US/10211462

| Sequence 80, Application US/10211462
| Publication No. US20040033495A1
| GENERAL INFORMATION:
| APPLICANT: Michard
| APPLICANT: Glynne, Richard
| APPLICANT: Glynne, Richard
| APPLICANT: Glynne, Richard
| APPLICANT: Aziz, Natasha
| APPLICANT: Aziz, Natasha
| APPLICANT: Eos Biocechnology, Inc.
| TITLE OF INVENTION: Methods of Diagnosis of Angiogenesis Modulators
| TITLE OF INVENTION: Methods of Screening for Angiogenesis Modulators
| TITLE OF INVENTION: Methods of Screening for Angiogenesis Modulators
| TITLE REPRENCE: 018501-00620US
| TITLE REPRENCE: 018501-00620US
| TITLE REPRENCE: 018501-00620US
| FRIOR PELICATION NUMBER: US 09/791,390
| PRIOR APPLICATION NUMBER: US 09/791,390
| PRIOR FILING DATE: 2001-02-12
| PRIOR FILING DATE: 2001-02-22
| PRIOR FILING DATE: 2001-02-22
| PRIOR FILING DATE: 2001-02-22
| PRIOR FILING DATE: 2001-03-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      500 ATCGTCCACGCCACGCCACGCCCAAGGAAGCTGTTGGCTGAAAAAGGTGGTTAT 559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361 AGCCTGTGGATGGTGGTTTCAATTCCAGCATATAATGGTGGGTCTCATCTGCCGGC 420
320 CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 GCCATGGCTGACTGGTACTTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 380 GCCGIGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 GIGGGCGICIGGAICCCAGCCCICCICCIGACIAIACCIGACTICAICTIIGCCGACGIC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             560 GTTGGCGTCTGGATCCTGCCCTGCTGCTATTCCCGACTTCATCTTTGCCAACG-- 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301 AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACGCCTTTACCCCGAT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ------TCAGTGAGGCAGATGACAGATATATCTGTGACGCTTCTACCCCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CIGCACCIGICAGIGGCIGACCICCICITIGICAICACACICCCCIICIGGGCAGIIGAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ouery Match 75.0%; Score 517.2; DB 13; Length 1679;
Best Local Similarity 85.8%; Pred. No. 1.5e-156;
Matches 592; Conservative 0; Mismatches 83; Indels 15; Gaps
                                                                                                            TTCCACTGTTGTCTGAACCCCATCCTCTAT 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
CORGANISM: Homo sapiens
US-10-211-462-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                618
                                                                                 661
                                                                                                                         949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     පු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
장
연
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \delta
ò
                             g
                                                                              8 8
```

```
Sequence 9, Application US/10181906
; Publication No. US20040053864A1
; GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Karsenty, Gerard
APPLICANT: Aming 'Michael
APPLICANT: Ducy, Particia
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROL OF BONE FORMATION VIA
TITLE OF INVENTION: MODULATION OF NEUROPEPTIDE Y ACTIVITY
FILE REFERENCE: 9142-020-999
CURRENT APPLICATION NUMBER: 10/10/191,906
CURRENT APPLICATION NUMBER: PCT/US01/02040
FRIOR FILING DATE: 2002-11-13
FRIOR FILING DATE: 2001-01-22
NUMBER OF SEQ ID NOS: 16
SOFTWARE PATENTIN VERSION 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTTCTATCATCCTGCCGGGC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 GIGGGCGICTGGAICCCAGCCCICCTCACTAIACCIGACTICAICTITGCCGACGIC 300
                                                                                                                                                                                                                                                                                                             99
                                784
                                                                                                                                                                                              600
                                                                                                                                                                                                                                                   904
                                                                                                                                                                                                                                                                                                                                                               964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----TCAGTGAGGCAGATGACAGATATCTGTGACCGCTTCTACCCCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     320 CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCAGCTTCCCTTCTGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 GICAACCICTACAGCAGCGITCICATCCIGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           500 ATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           560 GTTGGCGTCTGGATCCCTGCCTGCTGACTATTCCCGACTTCATCTTTGCCAACG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         380 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATGTCTATAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181 ATTGECCACGCCACCAACAGECCAAGGAAACTGCTGCTGGAAAAGGCAGTCTAT
785 CAGAAGCGCAAAGGCCCTCAAGACCACAGTCATCCTCCATCCTGGCTTTCTTCGCCTGTGG
                                                                                                                                                                                                                                 845 CIGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA
                                                                                                                                                                                                 541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CIGCACCIGICAGIGGCIGACCICCICITIGICAICACACICCCCITCIGGGCAGITGAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match

75.0%; Score 517.2; DB 13; Length 1679;
Best Local Similarity 85.8%; Pred. No. 1.5e-156;
Matches 592; Conservative 0; Mismatches 83; Indels 15;
```

480 784 540 844

724

8 셤 8 g g 8 g ð

∂

```
CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCATTTTGGGGAGTCATCAAGCAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 905 GGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC 964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             845 CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA 904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 15
US-10-151-274-14

| Sequence 14, Application US/10151274
| Publication No. US2003064071A1
| GENERAL INFORMATION:
| APPLICANT: Litteman, Dan R.
| APPLICANT: Won, Douglas S.
| APPLICANT: Wan, Capitenbeck, Theo
| TITLE OF INVENTION: INTO
| TITLE OF INVENTION: INTO
| TITLE OF INVENTION: INTO
| TITLE OF INVENTION: US/10/151,274
| CURRENT APPLICATION NUMBER: US/20/517,605
| PRIOR APPLICATION NUMBER: US/20/517,605
| PRIOR FILING DATE: 2002-05-05
| NUMBER OF SED ID NOS: 17
| SEQ ID NO 14
| LENGTH: 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 GICAACCICIACAGCAGCGIICICATCCIGGCCIITCAICAGCCIGGACCGGIACCICGCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            320 chécácchércáchédeceacchechtricheancacachtecentrededeachtridar 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      380 eccercecaaacreeracrireesaacricciarecaaecaecerecerererereracaea 439
                                                              seo Girddddirdddarddcrgdddirdddddarranddddarridardrirdddaadd--
                                                                                                                                                                                                                                                                                                                                                                                                                                      725 ATTGTCAFCCFGTCCFGCTAFFGCAFFAFCAFCFCCAAGCFGFCACACFCCAAGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 785 CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                                                                                                    361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                               301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGAT
                                                                                                                                                                                  ------readrandedeadardacadarararengaededeentreracedeaar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CTGCACCTGTCAGTGGCTGACCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 13; Length 1679;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 517.2; DB 13;
Pred. No. 1.5e-156;
0; Mismatches 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661 TICCACTGTTGCCTGAACCCCATCCTCTAT 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            965 triccacretrarcreaaccccarcerar 994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 85.8%;
Matches 592; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-151-274-14
      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601 (
                                                                                                                                                                                     618
                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                        셤
                                                                                                                          δ
                                                                                                                                                                        g
                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                               D.
                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               윰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ä
                                                                                                                          784
                                                                                                                                                                                     540
                                                                                                                                                                                                                          785 CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG 844
                                                                                                                                                                                                                                                                                                                                                              845 CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA 904
                                                                                                                                                                                                                                                                                                            CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTGGGAGTCATCAAGCAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                      GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCCAGTGAT 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
GACTIGIGGGGGGGTIGIGITCCAGITICAGCACATCATGGITGGCCTTATCCTGCCTGGT 724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGTGTGAGTTTGAGAACACTGTGCACAGTGGATTTCCATCACCGAGGCCCTAGCTTTC 964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 912. Application US/10342887

| Sequence 912. Application US/10342887
| Publication No. US20040058340A1
| GENERAL INFORMATION:
| APPLICANT Dai, Hongyue
| APPLICANT He, Yudong
| APPLICANT How May May
| APPLICANT May May
| APPLICANT Wand Gover, Laura Johanna
| APPLICANT Work Ware I Linsley, Rene
| APPLICANT Wand Gover, Laura Johanna
| APPLICANT Wand Gover, Laura Johanna
| APPLICANT Wand Gover, Laura Johanna
| APPLICANT Wand Ware Sequence of Sequence Patients
| APPLICANT Wand Ware Sequence of Sequen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                      725 Atrorcarctrorrectarrecarratearcarcaacerereacacrecaaggecae
                                                                                                                                                                                  380 GCCGIGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATGTACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               500 ATCGTCCACGCCACCAACACTCAGAGCCAAGGAAGCTGTTGGTGAAAAGGTGGTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        440 drcaaccretacaccacretcarceredecerreacareragaceeracerage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels 15; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 517.2; DB 13; Length 1679;
Pred. No. 1.5e-156;
0; Mismatches 83; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TICCACTGITGCCTGAACCCCCATCCTCTAT 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCCACTGTTGTCTGAACCCCATCCTCTAT 994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 85.8%;
Matches 592; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
CRGANISM: Homo sapiens
US-10-342-887-912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              905
                                                           121
                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         965
```

120

09

ò ద à 셤

ò

ઠ

```
-----TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT 664
                                                                                                             301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360
                                                                                  361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 420
                                                                                            665 GACTIGEGGEGGETGEGETECAGETICCAGETTCAGCACATCATGGCCTTATCCTGCCTGGE 724
                                                                                                                                         541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 600
                                                                                                                                                                               CIGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA 904
                                                                                                                                                                                                                           618
                                                                                                                                                                                   845
           q
                         ઠે
                                     g
                                                                                                                                      S
S
                                                                                                                                                                              g &
                                                                                                                                                                                                             B
                                                 \delta
                                                                qq
                                                                                 ò
                                                                                            g
                                                                                                         ठे
                                                                                                                       qq
                                                                                                                                                                     ሯ
                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                      a
```

Search completed: May 17, 2004, 22:14:04 Job time : 341.746 secs

```
May 17, 2004, 05:50:31 ; Search time 1991.6 Seconds (without alignments) 10345.919 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 ctgcacctgtcagtggctga.........gcctgaaccccatcctat 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       55026578
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27513289 seqs, 14931090276 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                       OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           em estba:*
em esthum:*
em esthum:*
em esthum:*
em esthum:*
em estpo::*
em estpo::*
gb_htc:*
gb_htc:*
gb_htc:*
gb_htc:*
em gsst1:*
em gss_hum:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                               US-09-367-052-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EST: *
                                                                                                                                                                                                                                                                                                                                                                   Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                           Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Ę,	CD251331 AGENCOURT	3X421287 BX421287	BX358346	BX421511 BX421511
			BX421287	BX358346	BX421511
SUMMARIES	O.		BX421287	BX358346	BX421511
		2 14 (	13	13	13
	P.	97	1201	1201	1201
df			74.1	73.4	73.2
	Score	517.2	511.6	506.2	505.4
	Result No.	1	7	٣	4

σ,	97685	53253	259	627	025	2	100	787	324	042	477	635	366	80	63	258	352	334	229	663	70	228	617	197	031	062	217	664	800	690	369	255	φ. Ω	109	157	565	844	456	412	205 BP43020	174 6038631		
BX396365	9768	35325	525	46262	200		0 1	18	332	504	47	63	9	0	863	225	335	2	222	991	270	322	36	313	703	909	321	991	980	969	136	125	949	310	315	926	94	4,	141	020	317	ALIGNMENTS	
13	13	13	12	13	- 1	1 -	7	13	14	12	13	14	4	101	σ	13	12	13	12	12	σ	13	13	12	12	12	14	12	12	13	12	14	Q	10	12	10	14	13	12	12	13		
1201	9	20	05	20	3	, (	Э,	20	4	ထ	ம		ια	) v	4	3*	ហ	$\vdash$	$\overline{}$	(A)	σ	œ	S	Н.	$^{\circ}$	വ	O	82	3	0	v	~	m	m	~	σ	æ	7	LO.	4	Ŋ		
71.7	ᆟ	ä	0	6		٠,	'n	'n	'n	m.	ď	 או	. c		6	· თ	ď	o,	œ,	۲.	7.	۲.	ė.	ď.	4.	4.	4.	ë.	ω.	m.	ď.	ä	'n	ä	φ.	œ.	œ.	ω.	7	۲.	ė.		
494.8	92	91.	48		4	) ' (	2	36.		43	-			4	-	11.		40	04	97.	•	93.	87.	38		76.	75.	37	œ,	9	62.	ä	35	•	33	34.	33.		28.	24.	23.		
Ŋ	ø	_	œ	0	, 0	,	4	15	13	14	Ľ	9	1	8 -	6	20	21	22	23	24	25	56	21	28	59	30	31	32	33	34	35	36	37	38	33	40	41	42	43	44	45		
																																		υ		O							

	mRNA linear EST 22-MAY-2003 mo sapiens cDNA clone		Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.	nmalian Gene Collection (MGC)		92 rownstein ogen Corp A.G.E. Consortium (LLNL)	science Corporation stribution information can be ortium/LLNL at:
	CD251331 AGENCOURT 14211919 NIH MGC 179 HO TWACE: 30384274 5' MBNA semience	CD251331 CD251331.1 GI:31011797 EST.	Homo sapiens (human) Homo sapiens Eukaryota; Metazoa; Mammalia; Eutheria;		Unpublished (1999) Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics National Cancer Institute / NIH	Bldg. 31 Rm10A07 Bethesda, MD 20892 Email: cgapbs-r@mail.nib.gov Tissue Procurement: Dr. Michael Brownstein cDNA Library Preparation: Invitrogen Corp cDNA Library Preparation To T.M.A.G.E. Consortium (LLML)	DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LhNL at:
RESULT 1 CD251331	LOCUS	ACCESSION VERSION KEYWORDS	SOURCE ORGANISM	REFERENCE AUTHORS TITLE	JOURNAL		

N

```
RESULT 2
BX421287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                         /organism="Homo sapiens"

//organism="Homo sapiens"

//mol_type="mRNA"

//db_xref="Laxon:9606"

//clone="IMAGE:3034274"

//tissue_type="Pituitary"

//tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   118.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Arcerceaeceaecaaeaeaeaeceaaeaeceaaeaaecrerreaeaaaaeereerar 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCATCTTTGCCAACG-- 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GIGGGCGICIGGAICCCAGCCCICCICCIGACIAIACCIGACIICAICIIIGCCGACGIC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 AGCCIGIGGAIGGIGGIGTITCAATICCAGCAIATAAIGGIGGGICTCAICCIGCCCGGC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541 CTGCCATATTATGTGGGGATCGGCATCGTCCTTCATCCTTTTGGGAGTCATCAAGGAA
584 CTGCCTTACTACAACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CIGCACCIGTCAGIGGCCGACCICCTCTIGICAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   119 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    404 GACTIGIGGGIGGITGIGITCCAGITICAGCACATCAIGGITGGCCTIAICCIGCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     464 ATTGICATCCTGTCCTGCTATTGCATTATCATCTCCCAAGGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCAACCTCTACAGCGCGGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCGTCATCCTCCTCTTACTGCATCATCTCTCTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75.0%; Score 517.2; DB 14; Length 872; llarity 85.8%; Pred. No. 2.7e-111; Conservative 0; Mismatches 83; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TICCACTGITGCCIGAACCCCAICCTCTAT 690
                         7
http://image.llnl.gov
Plate: NDAM449 row: h column: 3
High quality sequence stop: 654.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                       Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Simi:
Matches 592;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <sub>7</sub>-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     704
                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DP
DP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

BX421287 Homo sapiens B CELLS (RAMOS CELL LINE) Homo sapiens CDNA Clone CSODG004YG09 5-PRIME, mRNA sequence.
BX421287
EX421287.1 GI:30766068 Unpublished (2001)
Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Introduction about this cluster, was canstructed by Life Technologies, a division of
Introduction about this cluster, cereal advision of
Fergin Liang Email : fliangle Evrope - Ev into 393 120 453 180 513 240 573 300 631 360 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 420 09 Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 1201)
Li, W.B., Gruber, C., Jessee, J. and Polayes, D.
Pull-length colon, libraries and normalization
Unpublished (2001) 334 CTGCACCTGTCAGTGGCCGACCTCCTCTGTGTCATCACGCTTCCCTTCTGGGCAGTTGAT 394 GCCGTGGCAAACTGGTACTTTGGAACTTCCTATGCAAGGCAGTCCATGTCATACACA GIGGGCGICTGGAICCCAGCCCICCTGCTGACTATACCTGACTTCATCTTTGCCGACGTC AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT GCCATGGCTGACTGTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC Gaps 15; 14.1%; Score 511.6; DB 13; Length 1201; llarity 84.6%; Pred. No. 6.6e-110; Conservative 6; Mismatches 85; Indels 15; Homo sapiens (human) Homo sapiens Similarity Query Match Best Local Simi Matches 584; 121 ч 61 454 241 301 361 ACCESSION VERSION KEYWORDS SOURCE ORGANISM DEFINITION REFERENCE AUTHORS TITLE JOURNAL COMMENT FEATURES à

```
8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                           ద
                                                                               8 8 8
                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                           BX358346 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens CDNA clone CSODI036YJ17 5-PRIME, mRNA sequence.

BX358346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCATGGCTGACTGGCTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ••
                                                                                                              540
                                                                                                                                           858
                                                                                                                                                                            900
                                                                                                                                                                                           CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA 918
                                                                                                                                                                                                                                       999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            423
                     738
                                                   480
                                                                                 798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 1201)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full.length cDNA libraries and normalization
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCACCTGTCAGTGGCTGACCTCTTTTGTCACACTCCCCTTCTGGGCAGTTGAT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Genoscope
Genoscope - Centre National de Sequencage
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Bmail: seqrefégenoscope.cns.fr. Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. Contact : Peng Liang Email : fliang@lifetech.com URL
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Paraday Avenue Genoscope sequence ID : CSODIO36CE09QP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        forganism="Homo sapiens"

/mol_type="mRNA"

/db xref="teaxon:2666"

/clone="CROUGSY917"

/tissue type="PLACENTA COT 25-NORMALIZED"

/clone lib="Homo sapiens PLACENTA COT 25-NORMALIZED"

/note="Is strand cDNA was primed with a Not!-oligo (dr)

primer. Five prime end enriched, double-strand cDNA was

digested with Not I and cloned into the Not I and EcoR V

sites of the pCMVSPORT 6 vector. Library was normalized.
                                                                                                                               799 CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       364 CTGCACCTCTCTCTCTCTCTCTTTGTCATCACGCTTCCCCTTCTGGGGCAGTTGAT
541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                      601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                                                                                          739 Africarcciorcrecrariccarcarcarcarcaaccacacacacacac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 85; Indels 14; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73.4%; Score 506.2; DB 13; Length 1201; 85.3%; Pred. No. 1.2e-108; ative 1; Mismatches 85; Indels 14;
                                                                                                                                                                                                                                                                                                                       979 TIYCACTGTTGTYTGAACCCCWTCYTCTAT 1008
                                                                                                                                                                                                                                                                                                   661 TICCACIGITGCCIGAACCCCAICCICIAI 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BX358346.1 GI:30370215
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 580; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        424
                  579
                                                 421
                                                                                                             481
                                                                                                                                                                                                          859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                               RESULT 3
BX358346
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                       g
                                                                                                                                                                                                                                                                Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                              à
                                                                                                   8 G
                                                                                                                                                                       8 8
                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                          ద
```

421 ATCGTCATCCTCTCTCTGTTACTGCATCATCATCTTCTAAGCTGTCACACTCCAAGGGCCAC

664 AGTGA-------NGCZAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT 361 AGCCTGTGGATGGTGTGTTTCAATTCCAGCATATAAATGGTGGGTCTCATCCTGCCCGGC

AGCCAGGGGGACATCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT

301

180 543 240 603 300 663 360 709 420 769

484 GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC Greecearcreaeccorcerecrearyanacereaetreaetre 604 GTTGGCGTCTGGATCCCTGCCTCTGACTATTCCCGACTTCATCTTTGCCAACGTC

```
Contact: Genoscope,
Contact: Genoscope,
Genoscope, - Centre National de Sequencage
Genoscope, - Centre National de Sequencage
Genoscope, - Centre National Genoscope. Cons.fr
Email: seqrefégenoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r. For
more information about this cluster, see
http://www.genoscope.cns.fr,
cgi.bin/cluster.cgi?seq-CSODG007BG06QP1&cluster=1272.r. Contact:
Feng Liang Email: fliang@lifetech.com URL:
Chtp://fullhength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODG007BG06QP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BX421511 Homo sapiens B CELLS (RAMOS CELL LINE) Homo sapiens CDNA clone CSODG007YM12 5-PRIME, mRNA sequence.

BX421511 GI:30651194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                    600
                                  829
                                                                                                                                                                                                                                        889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens but a property of the property of
770 ATTGTCTGTCCTGCTATTGCATTATCATCTCCAAGCTGTCACACTGCACGCCAC
                                                                                                                                                                                                                                              830 CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                             601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               950 GGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC
                                                                                                                                             541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1010 TTCCACTGTTGTYTGAACCC 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661 TICCACTGTTGCCTGAACCC 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 4
BX421511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
```

```
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="cS00G007YMIS"
/tissue_type="B CELLS (RAMOS CELL LINE)"
/clone="type="B CELLS (RAMOS CELL LINE)"
/clone="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type="type=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                944 GGGTGTGAGATTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC 1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                418 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCMAGGCAGTCCATGTCATCTACACA 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    chécacchercadrédecéacerecretrirereareacerrecerrereaceagnicar 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         səs girgeceficiedaricetrecefectecreacratreceacricatricare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCCAGGGGGACATCAGGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            658 AGTGA------NGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 AGCCTGTGGATGGTGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCGTCATCCTCCTGCTTACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                884 CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Greakcereradacomererecrearecredecerreareaceresacesereseee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arcerceaceacemedagreageceaaggaagergrigecrgaaaaggregrerar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GIGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Arreticarccrerecrearingcarrarearcrecaagerereacaecrecaagecee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCACCTGTCAGGGCTGACCTCCTCTTGTCATCACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                     73.2%; Score 505.4; DB 13; Length 1201; 85.0%; Pred. No. 1.9e-108; ive 3; Mismatches 85; Indels 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1004 rrccacrerrerrereaacc 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCCACTGTTGCCTGAACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Simi
Matches 578;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                           DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठ
```

. 1201

FEATURES

Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mamaalia, Eutheria, Primatee, Catarrhini, Hominidae, Homo.

1 (Dases 1 to 1201)

Li, W.B., Gruber, C., Jessee, J. and Polayes, D.

Li, W.B., Gruber, C., Jessee, J. and normalization

Unpublished (2001)

Contact: Genoscope

sapiens (human)

Homo sapiens

ORGANISM

CEYWORDS

REFERENCE AUTHORS TITLE JOURNAL COMMENT

Contact: Serioscope retrieval de Sequencage
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BRMA11: seqrefégenoscope.cns.fr. Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSOD1015DF10QP1&cluster=1272.r. Contact
Feng Liang Email: filang@lifetech.com URL:
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenu Genoscope sequence ID: CSOD1015DF10QP1.

```
120
                                                                                                  409
                                                                                                                                                      469
                                                                                                                                                                               180
                                                                                                                                                                                                        529
                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                           589
                                                                                                                                                                                                                                                                                                            647
                                                                                                                                                                                                                                                                                                                                                                694
                                                                                                                                                                                                                                                                                                                                                                                       361 AGCCIGIGGAIGGIGGIGITICAATICCAGCAIATAATGGIGGGICTCAICCIGCCCGGC 420
                                                                                                                                                                                                                                                                                                                                                                                                                 754
                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                   CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCCAGTTGAT
                                                                                                                            GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GICAACCICIACAGCAGCGIICICAICCIGGCCIIICAICAGCCIGGACCGGIACCICGCC
                                                                                                                                                                                                                                                                                                   410 GCCGTGGCRAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA
                                                                                                                                                                                              GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCACTCTGGACGGCTACCTGGCC
                                                                                                                                                                                                                                                                                     GTGGGCGTCTGGATCCCAGCCCTCCTCAACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                GACTTGTGGGTTGTGCAGTTTCAGCACATCATGGTTGGCCTTATCCTGCTTGGT
                                                                                                                                                                                                                                  <u> arcercececcaecaecaercaegeccaaggaecrerrecregaaaaggregarerar</u>
                                                                                                                                                                                                                                                                                                                                        301 AGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                ------reagracecacaracacararararererescentras
                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCGTCATCCTCTCTGTTACTGCATCATCTCTTAAGCTGTCACACTCCAAGGGCCAC
                                                 Gaps
                                                16;
                    Query Match
71.7%; Score 494.8; DB 13; Length 1201;
Best Local Similarity 85.3%; Pred. No. 6.1e-106;
Matches 580; Conservative 1; Mismatches 83; Indels 16;
                                                                          CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCTT
                                                                                                                                                                                                                                                            530
                                                                                                   350
                                                                                                                             61
                                                                                                                                                                                121
                                                                                                                                                                                                        470
                                                                                                                                                                                                                                                                                                              590
                                                                                                                                                                                                                                                                                                                                                                 648
                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      755
                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                    695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
ORIGIN
                                                                                               셤
                                                                                                                                                                                                                                                                                    8 8
                                                                                                                                                                                                                                                                                                                              8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                            D
D
                                                                           8
                                                                                                                          \delta
                                                                                                                                              ద
                                                                                                                                                                           6 6 6
                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
```

OT 25-NORMALIZED Homo sapiens CDNA

1201 bp mRNA
BX396365 Homo sapiens PLACENTA COT 25-NORM
clone CSODIO15YL20 5-PRIME, mRNA sequenceBX396365
BX396365.1 GI:30609085

RESULT 5
BX396365
LOCUS
DEFINITION

ACCESSION VERSION us-09-367-052-3.rst

ហ

```
1201 bp mRNA linear EST 02-WAY-2003 NEUROBLASTOMA COT 25-NORMALIZED Homo sapiens 5-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            dational de Sequencage

dex - France

obs.cns.fr

ted by Life Technologies, a division of

nence belongs to sequence cluster 1272.r For

ut this cluster, see

.cns.fr/

liang@lifetech.com URL :

vitrogen.com/ InvitroGen Corporation 1600

cope sequence ID : CSODC003AD02QP1.
  240
                 591
                                      300
                                                                         360
                                                                                         697
                                                                                                              420
                                                                                                                                  757
                                                                                                                                                      480
                                                                                                                                                                    817
                                                                                                                                                                                           538
                                                                                                                                                                                                           877
                                                                                                                                                                                                                              598
                                                                                                                                                                                                                                                                          658
                                                                                                                                                                                                                                                                                        997
                                                                                                                                                                                                                                                  937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mo sapiens"
NA"
DI:9606"
03YG03"
"NEUROBLASTOWA COT 25-NORMALIZED"
OMO Sapiens NEUROBLASTOMA COT 25-NORMALIZED"
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ordata; Craniata; Vertebrata; Euteleostomi;
imates; Catarrhini; Hominidae; Homo.
NECAGCATCGACTCCTTCATCGGAGTCATCAAGC
                                                                                                                                                                                                                                                                         CCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC
                                                                           TIGCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ssee, J. and Polayes, D. cies and normalization
                                                                                                                                                                                                                                                                                                              CCCATCCTCTAT 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>,</u>
```

National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Contact: Gapbs-remail.nih.gov
Tissue Procurement: Invitrogen
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
DNA Sequencing by: Agencout Bioscience Corporation
Clone distribution: MGC clone distribution information can be from the LLAM12720 row: e column: 12
High quality sequence start: 20
High quality sequence start: 20
High quality sequence start: 20
Location/Qualifiers
rce
1...1051

Tue May

```
source
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                       4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        952 GGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC 1011
                                                                                                                                                                                 426
                                                                                                                                                                                                                120
                                                                                                                                                                                                                                  GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTACTACACA 486
                                                                                                                                                                                                                                                                                                          546
                                                                                                                                                                                                                                                                                                                                                                        909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                           GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180
                                                                                                                                                                                                                                                                                                                                         ATTGICCACGCCACCAACAGICAAAGGCCAAGGAAACIGCTGGCTGAAAAGGCAGICIAI 240
                                                                                                                                                                                                                                                                                                                                                                                                      GIGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                   664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              951
                                                                                                                                                      9
/note="lst strand cDNA was primed with a NotI-oligo(dT) primer. Five prime and enriched, double-strand cDNA was digested with Not I and cloned into the Not I and ScoR V sites of the pCMVSPORT 6 vector. Library was normalized.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGAAGCGCAAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTKGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                   CTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                GTCAACCTCTACAGGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC
                                                                                                                                                                                                                                                                                                                                                                     547 Arcercaceccaccacacacrayadadeccaadedadecreridecreadadecrearia
                                                                                                                                                                                                                                                                                                                                                                                                                                 607 GIIGGCGICIGGAICCCIGCCCICCIGCIGACIAIICCCGACIICAICIIIGCCAACG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACGGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ------tcagrandecadardadarararcrererededecentral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACTTGTGGGTGGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCTTATCCTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCGTCATCCTCTCTGTTACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTGTCATCCTGTCCTGCTATTGCATTATCATCCCAAACCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
                                                                                        71.3%; Score 491.8; DB 13; Length 1201;
larity 84.9%; Pred. No. 3.1e-105;
Conservative 2; Mismatches 85; Indels 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         || |||||||| |||||||
TT-CACTGTTGTCTGAACCC 1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TICCACTGITGCCTGAACCC 680
                                                                                                      Similarity
                                                                                                        Best Local Sim.
Matches 577;
                                                                                                                                                                                 367
                                                                                                                                                                                                                                                                                                          487 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1012
                                                                                                                                                                                                                                              427
                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              665
                                                                                         Query Match
                                                          DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                 \dot{\delta}
                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
```

/clone\_lib="NHH MGC\_124"
/clone\_lib="NHH MGC\_124"
/note="Organ: brain; Vector: pCMV-SPORT6; Site\_1: ECORV (destroyed); Site\_2: Not!; RNA source male hippocampus, age 27. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 0.9-4 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 012."

/clone="IMAGE:5726963" /tissue\_type="hippocampus" /lab\_host="DH108"

/organism="Homo sapiens" /mol\_type="mRNA" /db\_xref="taxon:9606"

```
358
                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      823
                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      479 ATCGTCCACCACCACCACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGGGCGTCTGGATCCCAGCCCTCCTCGACTATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         539 giridecercricearic coreccio con contrato contrato con contrato con contrato con contrato con contrato contrato con contrato co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cagaagececaaggecercaagaecacagrearecrearecragecrarierrescererres
                                                                                                                                                                                             CTGCACCTGTCAGTGGCTGACCTCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                            CTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          359 decerédecasacrideciaringeasacrinecraridesasedecadrecarenteraciones
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361 AGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     644 GACTIGIGGGIGGITGIGITCCAGITITCAGCACAICAIGGITGGCCTTAICCIGCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCGTCATCCTCCTCTGTTACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Arrenciarcenderarnecarnarcarenceaderrencaederecadesceae
                                                                                                   Gaps
                                                                                                   17;
Query Match 70.1%; Score 484; DB 12; Length 1051; Best Local Similarity 84.5%; Pred. No. 2e-103; Matches 585; Conservative 0; Mismatches 90; Indels 17;
                                                                                                                                                                                                                                                                                            599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       419
                                                                                                                                                                                                  -1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
```

1051 bp mRNA linear BST 20-FEB-2002 AGENCOURT 6497171 NIH MGC\_124 Homo Bapieng CDNA clone IMAGE:5726963 5', mRNA Sequence.

RESULT 8
BM545259
LOCUS
DEFINITION

BM545259.1 GI:18777197 EST. Homo sapiens (human) Homo sapiens

ACCESSION VERSION KEYWORDS SOURCE

ORGANISM

Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo. 1 (bases 1 to 1051)

1 (bases 1 to 1011, NIH-MGC http://mgc.nci.nih.gov/.

REFERENCE AUTHORS us-09-367-052-3.rst

DRIGIN

ω

us-09-367-052-3.rst

```
AGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGAT-TCCATCACCGAGGCC--TAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GECAACTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 GIGGGCGICIGGAICCCAGCCCICCTGACIAIACCIGACITICAICTITGCCGACGIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTTGGCGTCTGGATCCCTGCTCCTGCTGATTCCCGACTTCATCTTTTGCAACG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----TCAGTRAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     779 ATTGTCATCCTGTCCTGCTATTGCATTATCATCTCCAAGCTGTCACCACCCCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGGCTTTCTTCGCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                  CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481 CAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCT-AGCTTTCTTTGCCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCT-GGAAAYATCAAGCA
                                                                                                                                                                                                                                                                                                                                                                              CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCGTCATCCTCTCCTGTTACTGCATCATCATCTTAAGCTGTCACACTCCAAGGGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CS0DF006DE08QP1.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                           20;
                                                                                                                                                                                                                                                                                                         Score 453.8; DB 13; Length 1201, Pred. No. 2.9e-96; 3; Mismatches 85; Indels 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCCACTGTTGCCTGAACCC
                                                                                                                                                                                                                                                                                                           Query Match 65.8%;
Best Local Similarity 84.1%;
Matches 573; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      668
                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                  374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 12
BX462182
                                    FEATURES
                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         $ 8 $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (human)
Homo sapiens
Homo sapiens
Homo sapiens
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

Losses 1 to 1201)
Losses 1 to 1201)
Lordarios and normalization
Lordarios (2001)
Lordarios and normalization
Lordarios (2001)
Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Email: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=260PF0060E0B08QP1&cluster=1272.r. Contact:
Feng Liang Email: fliang@lifetech.com URL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BX418530 Homo sapiens FETAL BRAIN Homo sapiens CDNA clone CSODF006Y116 5-PRIME, mRNA sequence.
                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                           479
                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                539
                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGAT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATCGTCATCCTCTCTCTTACTGCATCATCTCTAAGCTGTCACACCACAGGG--- 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCGTCATCCTCCTGTTACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGGCC 779
                                                                                                                                                                                                         359
                                                                                                                                                                          9
   /note="Organ: colon, Vector: pCMV-SFORT6; Site_1: Not1; Site_2: SAll, Cloned unidarectionally. Primer: Oligo dr. Average insert size 1.6 kb. Constructed by Life Technologies. Note: this is a NCI_CGAP Library."
                                                                                                                                                                                              300 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                               420 GICAACCICIACAGCGAGCGTICTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                                                  GTGGGCGTCTGGATCCCAGCCTCCTCATATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      660 AGCCTGTGGATGGTGTTTTCAATTCCAGCATATAAAGGGGGTCTCATCCTGCCCGG
                                                                                                                                                                                                                                                                                                            GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
                                                                                                                                                                                                                                                                                                                                                                               GTGGGCGTCTGGATCCCAGCCCTCCTCCTAATACCTGACTTCATCTTTGCCGACGTC
                                                                                                                                                                          CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGT-GGGTCTCATCCTGCCCGG
                                                                                                                                       Gaps
                                                                                                                                         4.
                                                                                                     Length '906;
                                                                                                     Score 468; DB 13; Length 9
Pred. No. 1.1e-99;
0; Mismatches 10; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           477 CCACCAGAAGCGCAAGGCCCTCAAGACGACAG 508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780 ACCCAGAAACGCCAGGCCCCTCAAGACGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BX418530.1 GI:30658606
                                                                                                     Query Match
Best Local Similarity 97.3%;
Matches 498; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BX418530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EST.
                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
BX418530
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
```

g

8 g ò

q ò

ò

8 8

g à a g

임

ò

ò

240

613 300

120 493 180 553

433

Gaps

360

671

718 420 480 838 539 1014

us-09-367-052-3.rst

421 ATGGTCATCCTCCTG 762 ATTGTCATCCTGTCTG 481 CAGAAGGCAAGGCCTT 622 CAGAAGCGCAAGGCCCT 541 CTGCCATATTATGTGGG	882 CTGCCTTACATTGG 601 GGATGTGACTTCGAGA 		Vandenplas, M., Cord Moore, J.N., Liang, C. An EST database froi peripheral blood let Unpublished (2003) Other ESTS: LeukoN2. Contact: Cordonnier. Laboratory for Geno The University of Geno The University of Geno	Tel: 706 542 1860 Fax: 706 583 0210 Email: mmpratteduga. Library constructed the Human Genome Cel Science; tissue and Animal Medicine, un Laboratory for Genor	Sequence ends have) Phred quality 16. T) reverse complement 5 Seq primer: Sug5 (C Location/Qe 1 749 //nol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type=://mol_type	/Brranna /db xref="rc /clone="Le /sex="male /sex="male /riseue_ty /cell type /lab_fost= /lab_fost= /clone_lib	/note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=-Org /note=Org /note=-Org /note=Org /note=Org /note=Org /note=Org /note=Org /note=Org /note=Org /note=Org /note=Org /note=Org /note=Org /note=Org /note=Org /note=
ठं हे ठं हे ठं	Db Qy Db RESULT 13	14 I 0 8 I	AUTHORS TITLE JOURNAL COMMENT		FEATURES		a .
-2003 :DNA		ct .	d into	2; 60 416	120 476 180 536	240 300 654	360 701 420 761
BX462182  BX462182 Homo sapiens B CELLS (RAMOS CELL LINE) Homo sapiens CDNA clone CSODG003YO19 5-PRIME, mRNA sequence.  BX462182  BX462182  BX462182.1 GI:31031389  EST.  Homo sapiens (human)  Homo sapiens (human)  By Craniata, Vertebrata; Buteleostomi;  Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.	1 (bases 1 to 1201) 11,W.B., Gruber, C., Jessee, J. and Polayes, D. 11,W.B., Gruber, C., Jessee, J. and Polayes, D. 11, Pull-length Contact Consolver Contact: Genoscope Gonscope - Centre National de Sequencage Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - France Email: sequefagenoscope.cns.fr, Web: www.genoscope.cns.fr Library was constructed by Life Technologies, a division of	Invitrogen. This sequence belongs to sequence cluster 1272.r Pomore information about this cluster, see http://www.genoscope.cns.fr/ cgi-bin/cluster.cgpe.csp0g003AH10QP1&cluster=1272.r. Contact Feng Liang Email: fliang@lifetech.com URL: corporation 1600 http://fulllength.invitrogen.com/ InvitroGen Corporation 1600 Faraday Avenue Genoscope sequence ID: CS0DG003AH10QP1. Location/Qualifiers //organism="Homo sapiens" //mol_type="MRNA" //db_xref="mRNA"	/clone="CSUDGUSTOLS" /tissue type="B CELLS (RAMOS CELL LINE)" /coln="Ine="RAMOS CELL LINE" /clone lib="Homo sapiens B CELLS (RAMOS CELL LINE)" /note="Voctor: pCWVSPORT 6; lst strand cDNA was primed with a NotI-oligo(dT) prImer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned int the Not I and EcoRV sites of the pCMVSPORT 6 vector. Library was not normalized."	tch 81.3%; Score 436.8; DB 13; Length 1201; al Similarity 82.8%; Pred. No. 3e-92; 510; Conservative 13; Mismatches 77; Indels 16; Gaps 1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCTTCTGGGGAGTTGAT	61 GCCATGGCTGATACTTTGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT	181 ATTGECCAGGCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGTGAAAAGGCAGTCTAT	301 AGCCAGGGGACATCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 655TCAGTAAGGCAGATGACAGATATATCTGTGAMCGCTTCTACCCCAAT 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCGGC  161
LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM	REFERENCE AUTHORS TITLE JOURNAL COMMENT	FEATURES	ORIGIN	Query Match Best Local Simil Matches 510; C Qy 1 CTGC Db 357 CTGC	\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tin}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tex{\tex	6 6 6 6	6 6 6 6

```
orded by Dr. Yutaka Suzuki and Dr. Sumio Sugano in the Center, University of Tokyo Institute of Medical and RNA were prepared in the Department of Large is and RNA were prepared in the Department of Large University of Georgia; sequencing done in the Genomics and Bioinformatics, University of Georgia. are been trimmed to exclude vector and regions below 6. Three-prime sequences are presented as their ent and have been trimmed to exclude polyA.

[5] (CTTCTGCTCTAAAAGCTGCG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Type="leukocytes"

ost="DH10B-T1 phage-resistant E. coli"

lib="Unstimulated peripheral blood leukocytes N2"

lib="Unstimulated peripheral blood leukocytes N2"

in the "unstimulated equine peripheral blood

RNA from unstimulated equine peripheral blood

stes isolated from a healthy adult horse.

stranded cDNA was cloned unidirectionally into

ent Drall sites of the pME18s-FL3 vector (8-prime

site is GACTGTGTG, 3-prime Drall site is

GTG). Xhol excises the cDNA insert."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               749 bp mRNA linear EST 04-JUN-2003 NO24 Unstimulated peripheral blood leukocytes N2 iA clone LeukoN2_3_D11_A024 5', mRNA sequence.
                                                                                              540
                                                                                                                                          881
                                                                                                                                                                                                       GTTACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata, Craniata, Vertebrata, Euteleostomi,
Perissodactyla, Equidae, Equus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rdonnier-Pratt,M.-M., Suzuki,Y., Sugano,S.,
C., Sun,F., Sullivan,R., Shah,M. and Pratt,L.H.
rom equine (Equus caballus) unstimulated
eukocytes
                                                                                                   72 3_D11.bl_A024

rr-Pratt NM

lomics and Bioinformatics

Georgia, Department of Plant Biology

Iding, Rm. 2502, Athens, GA 30602-7271, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              thoroughbred"
"taxon:9796"
eukoN2_3_D11_A024"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ="Equus caballus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     me="blood"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rse)
```

ORIGIN

දු පු

ò

원장

원

à

```
/WOLLYPE="INDRA"
// Aref="Laxon:10090"
// Alb host="INAGE:333409"
// Alone="INAGE:333409"
// Alone="Index" germinal B-cell"
// Alone Boo RI sites of the modified pT7T3 vector.
// Alone Bonaldo."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BX362477 10mo sapiens T CELLS (JURKAT CELL LINE) COT 10-NORMALIZED Home sapiens CDNA clone CSODJ015YP09 5-PRIME, MRNA sequence.
BX362477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
Homo sapiens
Homo sapiens
Bukaryotas, Metazoa, Chordata, Craniata; Vertebrata; Euteleostomi;
Bukaryotas, Metazoa, Chordates, Catarrhini; Hominidae, Homo.
1 (bases 1 to 952)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGCCCTCCTCATACCTGACTTCATCTTGCCGACGTCAGCCAGGGGGACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCCAGGGGACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 GIGITICAATICCAGCAIAFAAIGGIGGGICTCAICCIGCCCGGCAICGICAICCICIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       436 TGTTACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             316 AGTCAGGGGGATGACAAGTACATCTGTGACCGCTTTTACCCCCGATAGCCTGTGGATGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCAAGACGACAGCATCCTCATCCTAGCTTTCTTTGCCTGCTGCTGCCATATTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                          ·.
                                                                                                                                                                                                                                                                                                                                                                                                      Length 582;
                                                                                                                                                                                                                                                                                                                                                                                                    cch 63.0%; Score 435; DB 12; Length 5 al Similarity 100.0%; Pred. No. 5.6e-92; 435; Conservative 0; Mismatches 0; Indels
           Seg primer: -40RP from Gibco
High quality sequence stop: 5
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BX362477.1 GI:30380640
                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 435; Conserv
MGI:1077573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 15
BX362477
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EST 01-FEB-2001
                                                                    1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCCTAAAAGAACCACAGTTATCCTCATCCTGGCTTTCTTCGCCTGCTGCTGCCTACTAC 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   672
                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                        226
                                                                                                                                                                                                                                                                                                                                                                                         372
                                                                                                                                                                                                                                                                                                                                                                                                                           285
                                                                                                                                                                                                                                                                                                                                                                                                                                                               432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Greergriccaerincaecacaraaregreegecriatecreeceaecarcerearea 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GIGGGGAICAGCAICCAICCIICAICCIIITIGGGAGICAICAAGCAAGGAIGIGACIIC 612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGAGCACTGTGCACAAGTGGATTTCTATCACCGAGGCCCTAGCCTTTTTCCACTGTTGC 585
                                                                                                    132
                                                                                                                                                                          AGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCC 192
                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                252
                                                                                                                                                                                                                                                                                                                    312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     recreeriarriscerrarearerecaaserereceaereceaeseaseseraesaaaaseeaaa 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (house mouse)
Mus musculus
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sclurognathi; Muridae; Murinae; Mus
I Chases I to 5823
NCI-GAAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S82 bp mRNA linear EST 01-FEB-20 MRTSA01.yl Soares mouse NMGB bcell Mus musculus cDNA clone IMAGE:3333409 5' Similar to SW:CCR4_MOUSE P70658 C-X-C CHEMOKINE BC145042 TYPE 4 ;, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                           181 ATACCTGCTCTTCTGCTGACTATTCCCCACTTCATCTTTGCCAACG-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTGGGATCAGCATCGACCCTTCATCCTCGGAAATCATCCAGCGAGGATGTGAGTTT
                                                                                                      TGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTAC
                                                                                                                             ATCCCAGCCCTCCTCACTATACCTGACTTCATCTTTGCCGACGTCAGCCAGGGGGAC
                                                                                                                                                                                                                                                                                                                                                                                          313 ATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATG
                                                                                                                                                                                                                                                                                                                                                                                                                             227 -readsaadaddareaaadarararcheraaccarreracceceaaaractriched
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GIGGIGITICAATICCAGCATATAATGGTGGTCTCATCCTGCCCGGCATCGTCATCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAAGGGCCCACAGAAGCGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGC
                                                                                                                                                                                                                                                193 ACCAACAGTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGG
                                                                      Gaps
                                                                      15;
                              Score 435.6; DB 14; Length
Pred. No. 4.5e-92;
0; Mismatches 89; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGAACCCCATCTCTAT 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BG145042.1 GI:12648446
                                  Query Match 63.1%;
Best Local Similarity 83.2%;
Matches 514; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       433
                                                                                                                                                                                                                                                                                                                          253
                                                                                                        73
                                                                                                                                          Н
                                                                                                                                                                              133
                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
BG145042
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
COMMENT
```

셤 ò g ö 쉱 ò g  $\delta$ d Ś

g

 $\delta$ 

a ò

```
is ii, W.B., Gruber, C., Jessee, J. and Polayes, D.
Full-length cDNA libraries and normalization
L Unpublished (2001)
Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Email: Seqref@genoscope.cns.fr, Wew.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODJO15CH05QP1&cluster=1272.r. Contact:
Feng Liang Email: filangelifetech.com URL:
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODJO15CH05QP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       370 CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481 CAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTTTGCTTTGCCTGCTGG 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 GTCAACCTCTACAGCGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   550 ATTGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 GIGGGCGTCTGGATCCCAGCCCTCCTCAACTATACCTGACTTCATCTTTGCCGACGTC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              610 GTTGGGTCTGGATCCCTGCCCTCCTGCTGACTATCCCGACTTCATCTTTGCCAACG-- 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301 AGCCAGGGGGACATCAGGGGGATGACAGGTACATCTGTGACGCCCTTTACCCCGAT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361 AGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421 ATCGTCATCCTCTCTGTTACTGCATCATCTCTTAAGCTGTCACACTCCAAGGGCCAC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/moi type="mRNA"
/db_wref="taxon:966"
/db_oref="Cs0DJ015YP09"
/cell_type="T CELLS (JURKAT CELL LINE) COT 10-NORMALIZED"
/cell_line="JURKAT"
/cll_line="JURKAT"
/cll_line="Homo sapiens T CELLS (JURKAT CELL LINE) COT
10-NORMALIZED"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 775 Arrerchichtecherenarrechranearcheraeistekenerteakegedeae 834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       835 CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="lst strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR of stees of the pCMVSPORT 6 vector. Library was normalized.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                490 GTCAACCTCTACGGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 62.6%; Score 431.8; DB 13; Length 952;
Best Local Similarity 84.5%; Pred. No. 4e-91;
Matches 497; Conservative 4; Mismatches 72; Indels 15; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTGGGA 588
   AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

895 CTGCCTTACTACATTGGGATCAGCATGGACTCCTTCATCYYCTKGSAA 942

a a Search completed: May 17, 2004, 16:09:01 Job time : 1999.6 secs

```
May 17, 2004, 04:56:59; Search time 7592.63 Seconds (without alignments) 10714.982 Million cell updates/sec
                                                                                                                                    6940544
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                           3470272 seqs, 21671516995 residues
                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                           OM nucleic - nucleic search, using sw model
                                                                                                                                                         IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   em_hum: *
em_in: *
em_om: *
em_om: *
em_or: *
em_or: *
em_pat: *
em_pat: *
em_pat: *
em_ro: *
em_ro: *
em_ro: *
em_ro: *
em_hrg: hum: *
                                                                                                                                                                                                                                       Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                              US-09-367-052-1
1877
                                                                                                                                                                                                                                                                                                                                  GenEmbl:*
                                                                                                                                                                                                                                                                                                                                                                                            Title:
Perfect score:
Sequence:
                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                       Database :
                                                                                                                                                                                          Searched:
                                                                 Run on:
```

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	iption								MMLCR13 Z80113 Mus muscu																							1810	2572	7. 0. 1. 1.	52185 AF452185 Rattus no	316	ALIGNMENTS		1877 bp mRNA linear ROD 07-FEB-1 murine CXCR-4, complete cds.			a, Craniata, Vertebrata, Euteleosto	a, Sciurognathi, Muridae,	Tachibana, K., Iizasa, H., Bleul, C.C.,
,	Ci 8	10	0	0		0	0	0	0	0	-	>					-	•						н											10 AF4		~		for mu	45	e mouse)	t; Chordat	_	Nakajima, T.,
	Length D	1877	81	180	37	157	7	225	142	118	93	7.0	73	73	73.0	73	99	99	63	67	99	99	99	99	64	67	67	9	95	2 6	89	58	7.5	4 C	1050	œ w			us mRNA	GI:17724	R-4. us (hous	.us Metazoa,	Suth	- :
	% Query Match	10		. 7	10 n	. 6	<u>س</u>	4.0	, d		o, a		ä			ä	.i .	; 0	0			0			0	<i>.</i>				, o		6	o	, a	. 8	œ.			muscul	747.1 GI	murine CXCR- Mus musculus	Mus musculus Eukaryota; M	malia; ; (sites)	asawa, T
	Score	1877	797	683	602	474	384	216	1152.6	143	1114	974.4	974.4	4.4.6	974.4	974.4	960.4	952.0	952.8	952.8	951.8	951.8	951.8	951.8	947.6	944.8	944.0	939.8	938.2	9 9 4 4 4 4	93.5	33	33	35	8.806	0 7			TON Mus			SM		
	Result No.	1	1 73	m ·	4+ u	n vo	7	<b>σ</b> ο σ		-	c 15	14	15	916	- R	13	20	7 7 7	23	24	5°2 70	27	78 78	9 6	31	3.2	ა ი ა 4	35	36	) e	) M	40	4, 4	4. 4 7. L	4.	45		RESULT 1 D87747	LOCUS DEFINITION	VERSION	KEYWORDS SOURCE	ORGANI	REFERENC	AUTHORS

N

```
1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAA 1500
    420
                               420
                                                              480
                                                                                          480
                                                                                                                       540
                                                                                                                                                    540
                                                                                                                                                                                 900
                                                                                                                                                                                                             600
                                                                                                                                                                                                                                            999
                                                                                                                                                                                                                                                                        99
                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                     TGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGGCTCTCATCCTGCCCGGCATCG
                                                                                  TGGCTGACTGGGTACTCTGGGAAATTTTTGTGTAAGGCTGTCCATATCATACACTGTCA
                                                                                                                                                     ACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTG
                                                                                                                                                                                                                                          GCGTCTGGATCCCAGCCCTCCTCACTATACCTGACTTCATCTTTGCCGACGTCAGCC
                                                                                                                                                                                                                                                               GGGTCTGGATCCCAGCCCTCCTCTCTATACCTGACTTCATCTTTGCCGACGTCAGCC
                                                                                                                                                                                                                                                                                                                                AGGGGGACATCAGTCAGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCA
                                                               TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAJCTACACTGTCA
                                                                                                                       ACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTG
                                                                                                                                                                                  AGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCC
                                                                                                                                                                                                                                                                                                                                                                  TGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                           TCATCCTCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCACAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                             GIGACTICGAGAGCATIGIGCACAAGIGGAICTCCCAICACAGAGGCCCTCGCCTICTICC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGACTTCGAGAGCATTGTGCACAAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTIGITGCCTGAACCCCATCCTCTATGCCTTCCGGGGCCAAGTTCAAAAGCTCTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1141 GGGGGGACACTCTCCGTCTCCACGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCIGICAGIGGCIGACCICCICITIGICAICACACICCCCITICIGGGCAGIIGAIGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCATGCACTCAACTCCATGAGCAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081 AGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTTTTTTTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Acreriscorgaaccccarccrcrarecorrectessesccaastrcaaaascrcreecc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGGGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTTATGCAAAGACTTATATATATATATATATATATGATAAAGAACTTTTTTATGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTTTTTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGT
                                 361
                                                              421
                                                                                                                                                    481
                                                                                                                                                                                                               541
                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
    361
                                                                                         421
                                                                                                                       481
                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1381
                                                                                  g
                         g
                                                    à
                                                                                                                       à
                                                                                                                                            ď
                                                                                                                                                                               à
                                                                                                                                                                                                     8 B
                                                                                                                                                                                                                                                               음 상 음
                                                                                                                                                                                                                                                                                                                                                      6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       જે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /codon_start=1
/evidence=experimental
/evidence=experimental
/product="murine CXCR-4"
/protein_id="BAPA1341.1"
/db_xref="GI:172446"
/tb_xref="GI:472446"
/tb_xref="GI:4772446"
/translation="MEPISVSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIYFIIFLTGIVGNGLVILVMGYQKKIRSMTDKYRLHISVADLLFYYTILFFWAYDAMA
DWYFGKFLCKAVHIIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYV
GVWIRALLITIPDFIRADVSQADISQGDDRYICDRLYPDSLWMVVFQPCHIMVGLILP
GVWIRALLITISKLSHSKGHQKRKALKTTVILILAFPACWLPYYVGISIDSFILLGV
IKQGCDFESIVHKWIGJIEALAFFHCLINPILYAFLGAKFKSSAQHALNSMSRGSSLK
ILSKGKRGHSSVSTESESSSFHSS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
Molecular cloning and characterization of a murine pre-B-cell growth-stimulating factor/etromal cell-derived factor 1 receptor, murine homolog of the human immunodeficiency virus 1 entry coreceptor fusin Proc. Natl. Acad. Sci. U.S.A. 93 (25), 14726-14729 (1996) 9712.456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                         Nagaswa,T.
Direct Submission
Submitted (05-SEP-1996) Takashi Nagasawa, Research Institute, Os
Submitted (05-SEP-1996) Takashi Nagasawa, Research Institute, Os
Medical Center, Department of Immunology; Murodocho 840, Izumi,
Osaka 590-02, Japan (E-mail:immunol@osk.threewebnet.or.jp,
Tel:0725-56-1220, Fax:0725-57-3021)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCATCCTAATACGACTCACTATAGGGCTCGAGCGGCCGCCCGGGCAGGTGCAGGTAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGACCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGCGAGTGTTGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGACCTCTGAGGGGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGGGAGTGTTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCATCCTAATACGACTCACTATAGGGCTCGAGCGGCCGCCCGGGCAGGTGCAGGTAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTTCCTGCCCACCATCTACATCATCTTGACTGGCATAGTCGGCAATGGATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGATCCTGGTCATGGGTTACCAGAAGCTAAGGAGCATGACGACAAGTACGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1877;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                  murine PBSF/SDF-1 receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                        receptor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
                                                                                                                                                                                                                                                                                                /organism="Mus musculus"
/mol type="mRNA"
db xref="taxon:10090"
/cell line="bW4"
/cell type="pre-B cell"
/tissue_type="bone marrow"
/ issue_type="bone marrow"
/gene="murine CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
100.0%; Score 1877;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1877; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                      20. .1199
'gene="murine CXCR-4"
'function="PBSF/SDF-1
                                                                                                  Chases 1 to 1877)
Nagasawa, T.T.
Wolecular cloning of mupublished
Chases 1 to 1877)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                      MEDLINE
PUBMED
PUBMED
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
                                                                                                                                                                                                                                                                     FEATURES
 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DRIGIN
```

B & B & B &

상염

δ ద ò

1441 AGCTGGTHATTCONTONIONGOACCTORAGEACCACACACACACACACACACACACACACACACACAC
09 1501 TGTGTGGTAAATTGAATAAGC Db 1501 TGTGTGGTAAATTGAATAAGC Db 1501 TGTGTGGTAAATTGAATAAGGC OY 1561 TTCCGAGGAGCACCCCCCCCC OY 1621 GTGTGTGTGATGATTGATAAAGC OY 1621 GTGTGTGTGATGGTTTTTTGAT Db 1681 AGATGGCACTTAAAACCAAGC OY 1681 AGATGGCACTTAAAACCAAGC OY 1741 GTTTTTTTTTTCAGTTTTTCAAG OY 1741 GTTTTTTTTTTTCAGTTTTTCAAG OY 1741 GTTTTTTTTTTCAGTTTTTCAAG OY 1741 GTTTTTTTTTTCAGTTTTTCAAG OY 1741 GTTTTTTTTTTTCAAGTTCAAG OY 1741 GTTTTTTTTTTCAAGTTTCAAG OY 1741 GTTTTTTTTTTCAAGTTTCAAG OY 1741 GTTTTTTTTTTCAAGTTTCAAG OY 1741 GTTTTTTTTTTCAAGTTTCAAG OY 1741 GTTTTTTTTTCAAGTTTCAAG OY 1741 GTTTTTTTTTCAAGTTTCAAG OY 1741 GTTTTTTTTTCAAGTTTCAAG OY 1741 GTTTTTTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

```
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 61 Row: d Column: 24

This clone was selected for full length sequencing because it passed the following selection criteria: Similarity but not identity to protein.

Location/Qualifiers

1. 1817

Appe="MRDA"

Appe="MRDA"

/ Organism="MRDA"

/ Appe="MRDA"

/ Appe="MRGE:3526479"

/ Lissue Lype="MRGE:3526479"

/ Lissue Lype="MRGE:35266 MRGE:352479"

/ Lissue Lype="MRGE:35266 MRGE:3526479"

/ Lissue Lype="MRGE:35266"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /translation="WEPISYSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP
TIYFIIFLTGIVGNGLVILVNGYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMA
DWYFGKFLCKAVHIYTVNIYSSVIILAFISLDRYLAIVHATNSQRPKKLLAEKAVYV
GWYIPALLLTIPDFIFADVSGDISGDDRYICDRLYPDSLWMVFQFQHINVGLILP
GIVILSCYCIIISKASKGHQKRKALKTYVILILAFFACWLPYYVGISIDSFILLGY
IKQGCDFESIVHKWISITEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLK
ILLSKGRGGHSSVSTESSESSFHSS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ų.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. 1817
/gene="Cxcr4"
/note="sylonyms: LESTR, fusin, PB-CKR, PBSF/SDF-1, CD184"
/db_xref="locusID:12767"
/db_xref="MGI:109563"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               246. .1004
/note="7tm_1; Region: 7 transmembrane receptor (rhodopsin
family)"
/db_xref="CDD:pfam00001"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       68 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCTTCCGGGATGAAAACGTCCA 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ξ.
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                              Email: cgapbs-remail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
DNA Library Preparation: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genome
Sequencing Center
Center code: BCM-HGSC
Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: ang@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged, F
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
A.N., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match

95.8%; Score 1797.4; DB 10; Length 1817;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 1809; Conservative 0; Mismatches 1; Indels 1; G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /oodon_start=1
/product="chemokine (C-x-C motif) receptor 4"
/protein_id="An431665.1"
/db_xref="LocusID:12767"
                                                                             NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
                                                                                      EMARK
```

128 AGTGGGGT	TCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA 187	
230 TTTCAATAGGATC	AGGATCTICCIGCCCACCACCATCIACTICATCITCITGACTGGCATAGTCGG 289	
290 CAATGGA         248 CAATGGA	INTTGGTGATCCTGGTCATGGGTTACCAGAAGATAGCTAAGGAGCATGACGGACAA 349	
350 GTACCGG	CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGC 409	
410 AGTTGATC         368 AGTTGATC	GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT 469	
470 CTACACT         428 CTACACT	CTACACTGTCAACCTCTACAGCGGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA 529	
530 CCTCGCC         488 CCTCGCC	CCATTGTCCACGCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGAAAAAGGC 589	•
S90 AGTCTATG            S48 AGTCTATG	GIGGGCGICTGGAICCCAGCCTCCTCCTGACTAIACCTGACTTCATCTTTGC 649	
650 CGACGTC         608 CGACGTC	CAGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTA 709	
710 CCCCGATAGC 	AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGGGTCTCATCCT 769	
770 GCCCGGC          28 GCCGGC	COGGGATCGTCATCCTCTGTTACTGCATCATCATCTCTAAGCTGTCACACTCCAA 829	
830 GGGCCAC(         788 GGGCCAC	CCAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTCTTGC 889	
890 CTGCTGGC          848 CTGCTGGG	COTGCCATATTATGIGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCAT 949	
950 CAAGCA2         908 CAAGCA2	CAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGCATCTCCATCAGAGGCCCT 1009	
1010 CGCCTTC          968 CGCCTTC	CGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAA 1069	
1070 AAGCTCT        1028 AAGCTCT	GCCCAGCATGCACTCAAGAGCAGAGGGCTCCAGCCTCAAGATCCTTC 1129	
1130 CAAAGG7         1088 CAAAGG7	CAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGAGTCAGAATCCTCCAGTTTTCA 1189 	
1190 CTCCAGG	CAGCTAACCCTTATGCAAAGACTTATATAATATATATATA	
1250 TTTTATC          1208 TTTTATC	TITTATGATATATATCAGATATAAGAGACTGACCAGTCTTGTACAGTTTTTTTT	

1850 AAAAAAAAAA 1860 ||||||||||| 1807 AAAAAAAAA 1817

g

ABDOOB03  MOUSE MRNA for murine CXCR-4, complete cds.  ABOOR0803.  ABOOR0803.  ABOOR0803.  ABOOR0803.  ABOOR0803.  GI:181645  ABOOR0803.  GI:816445  MAUSING (A. 181644)  MAUS MUSCULUS (House mouse)  MUS musculus (house mouse)  MAS musculus (Abases I to 1809)  Suzuki, G., Nakata, Y., Uzawa, A., Shirasawa, T., Saito, T. and Mita, K.  MOlecular cloning of murine CXCR-4, a murine homologue of HIV entry co-receptor, that is expressed on leukocyte and other organs  Unpublished  2 (bases I to 1809)  Suzuki, G.  Direct Submission  Submitted (29-JAN-1997) Gen Suzuki, National Institute of Submission of Radiation Health, 4-9-1, Anagawa, Inage-Ku, Chiba, C	organism="Wus musculus"  "Orland Lype="mRNA"  strain="C57BL-6"  dL xef="taxon:10090"
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------

/dev\_stage="E17"
72. ..1151
/note="fuein"
/codon\_start=1
/codon\_start=1
/product="murine CXCR-4"
/db\_xref="d1:1816446"
/db\_xref="d1:1816446"
/translation="wiEplSYSTYSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP
TIYPITETCHTOFFTRANINGSOLISGEDDRYLATYPDSLLATYTTLAFFRANYDBA
DWYFGRELCTRANITYTTNYSSYLATYTTLAFFRANYDFSCRANYY
GVWIPPALLLTIPDFTRALNSFRACTHOFTLAFFACTHLPYTYTTLAFFACTHLPYTYTTLAGA
GIVILSCYCTITSCASSYSTESSSSSFHSS"
ILSKGKRGGHSSVSTESSSSSFHSS" ŝ CAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTG CCGACGTCAGCCAGGGGGACATCAGGGGGGATGACAGGTACATCTGTGACCGCCTTT ACCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCC TGCCGGGCATCGTCATCTCTGTTACTGCATCATCATCTCTAAGCTGTCACACTCGA TGCCCGGCATCGTCATCCTCTGTTACTGCATCATCATCTTAAGCTGTCACACTCCA GCAGGTAGCAGTG-ACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGGCTGTAGAGGCTGTAGAGGCTGTAGAGGCGTGTAGAGGCGTTTGGTGCTCCGGTAACCACGCAGGGCTGTAGAG CGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAG GCAATGGATTGGTGATCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGACA GCAATGGATGACGGACA GCAATGGATTGCCAGAAGAAGCTAAAGAGCATGACGACA GCAATGGATTGCAGATTACCAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAACATGACGACA TCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGT Gaps DB 10; Length 1809; 17; 24; Indels Query Match

89.7%; Score 1683.6;
Best Local Similarity 97.7%; Pred. No. 0;
Matches 1765; Conservative 0; Mismatches н ORIGIN 8 B 8 B 8 B 8 면 당 8 8 8 6 B 6 8 & 8 

TTGTTGTTTTTTTTTTTGTAAAAGATGGCACTTAAAACCAAAGCCTGAAATGGTGGTAG GTCCCTACAAAIGTACAGTCTTGTATACATTGTTAATAAAAGTCAATGATAAACTTAAA AATTTATATAAATA----TTGTTTTTTTTTTGTTTCATGTGAATGAGCGTCTAGGCAGGA ccrerescenagricitasrascrerrarcrererassacrerasaacrerasassas CCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGAACTGTAGAACTGTAGAGA ---GTTGTTG CTCCCTACAAAIGIACAGTCTTGTATIACAITGTTAATAAAAGTCAATGATAAACTTAAA TCAAGCAAGGATGTGACTTCGAGGATTGTGCACAAGTGGATCTCCATCACAGAGGCCC TCGCCTTCTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCATGCCTTCTTCCTCGGGGCCAAGTTCATGCCTTCTTCTCTCGGGGCCAAGTTCA CCAAAGGAAAGCGGGGGGACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTC CCAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGAAGTCAGAATCTCCAGTTTTC TITITITITAAIIGACIGIIGGGAGIIIAAIGIICCICIAGIIIITIGIGAGGIIIGACIT |||||| IIITITI-----AIIGACIGIIGGGAGIIIAIGIICCICIAGIIIIIGIAGAGIIIGACII AGAAACTGAACATTCCAGAATGTGTAGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCT 8 8 6 6 6 6 임 8 8 8 8 6 g à g 8 8 6 B 6 B 6 B 6 B 6 B 9 9 9 9 के के क

AC145861

COMMENT

```
83417: contig of 1572 bp in length 84310: contig of 1331 bp in length 84510: contig of 1332 bp in length 84510: contig of 1333 bp in length 86788: contig of 1738 bp in length 86888: gap of unknown length 90570: contig of 2004 bp in length 90570: contig of 2004 bp in length 90570: contig of 2004 bp in length 90570: contig of 2351 bp in length 90570: contig of 3351 bp in length 90570: contig of 3351 bp in length 90570: contig of 3351 bp in length 100576: contig of 3351 bp in length 100576: contig of 3351 bp in length 105893: contig of 3363 bp in length 115732: gap of unknown length 115732: gap of unknown length 115628: contig of 3599 bp in length 116428: gap of unknown length 126621: contig of 4552 bp in length 126621: contig of 4552 bp in length 13431: gap of unknown length 13569: gap of unknown length 13569: contig of 5727 bp in length 15569: gap of unknown length 15569: gap of unknown length 15569: gap of unknown length 155988: contig of 5727 bp in length 155988: contig of 5727 bp in length 150980: contig of 5727 bp in length 150980: contig of 4727 bp in length 150980: contig of 4725 bp in length 150980: contig of 4725 bp in length 150980: contig of 4725 bp in length 150980: contig of 4726 bp in length 150980: contig o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5 175370: contig of 8026 bp in length.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. 175370

/organism="Pan troglodytes"
/mol type="genomic DNA"
/db xref="taxon:9598"
/chromosome="UNK"
/clore="RP43-21D9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                159989
160089
167245
167345
        81846
833418
843418
86781
86781
86781
86883
88883
90771
93077
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
90771
9077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nisc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
Source
                                            AC145861 175370 bp DNA linear HTG 01-AUG-2003 Pan troglodytes chromosome UNK clone RP43-21D9, *** SEQUENCING IN PROGRESS ***, 39 unordered pieces.
                                                                                                                                                                                                                                                                                                                                              Eukaryotar, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Pan. 1 (bases 1 to 175370)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Our Dates 1 to 175370)
Wilson,R. K.
Direct Submission
Submitted (01-MUG-2003) Genetics, Genome Sequencing Center, 4444
Forest Park Parkway, St. Louis, MO 63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center: Washington University Genome Sequencing Center Center Center wurdsC
Web site:http://genome.wustl.edu
Contact: submissions@watson.wustl.edu
Contact: submissions@watson.wustl.edu
Contact: submissions@watson.wustl.edu
Center project Information

* NOTE: This is a 'working draft' sequence. It currently
* NOTE: This is a 'working draft' sequence.

* NOTE: This is a 'working draft' sequence record is
* soon alt be the exact sizes of the pieces
* runs of N, but the exact sizes of the gaps are unknown.
* This record will be updated with the finished sequence
* as soon as it is available and the accession number will
* be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17155: contig of 5345 bp in length 5445: gap of unknown length 17155: gap of unknown length 17255: gap of unknown length 17255: gap of unknown length 33250: contig of 15955 bp in length 45646: gap of unknown length 61922: contig of 12296 bp in length 62092: gap of unknown length 63423: contig of 16246 bp in length 63622: gap of unknown length 6466: contig of 1331 bp in length 6466: gap of unknown length 6456: contig of 1331 bp in length 6456: gap of unknown length 66994: gap of unknown length 66994: gap of unknown length 6730: gap of unknown length 6730: gap of unknown length 6730: gap of unknown length 6731: contig of 1352 bp in length 6730: gap of unknown length 72172: contig of 1869 bp in length 72172: contig of 1819 bp in length 72172: gap of unknown length 7314: gap of unknown length 75185: contig of 1819 bp in length 75284: gap of unknown length 75285: contig of 1870 bp in length 75285: gap of unknown length 75285: gap of un
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              f unknown length
g of 1471 bp in length
d unknown length
f unknown length
f unknown length
g of 1459 bp in length
t unknown length
g of 1451 bp in length
g of 1451 bp in length
g of 1451 bp in length
g unknown length
g unknown length
unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The sequence of Pan troglodytes clone Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               contig
gap of a
gap of a
contig
gap of a
                                                                                                                                                                                                                                         HTG, HTGS PHASE1.
Pan troglodytes (chimpanzee)
Pan troglodytes
                                                                                                                                                                     AC145861
AC145861.1 GI:33386791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                80064:
81745:
81845:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       78413:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             117196
117196
117196
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
117197
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11719
11
                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                            LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
```

Db 168142 TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC 1682	361 ACCTGTCAGTGGCTGACCTCTTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCA	Db 168202 ACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCA 1682	Qy 421 TGGCTGACTGGTACTTTGGGAAATTTTGTGTAAGGCTGTCCATATCTACACTGTCA 480	Db 168262 TGGCTGACTGGTACTTTGGGAAATTTTTGTGTGAGGCTGTCGATATCATCTACACTGTCA 1683	481 ACCTCTACAGCGAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTG		541 TCCACGCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGCTG	168382 TCCACGCCACCAACAGTCAGAGGCCAAGGAAACTGCTGGCTG	601 GCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCGTCAGCC	168442 GCGTCTGGATCCCAGCCCTCCTCGACTATACCTGACTTCATCTTTGCCGACGTCAGCC	Oy 661 AGGGGGACATCAGTCAGGGGGGATGACAGGTACATCGTGACGGCTTTTACCCCGATAGGC 720		168	Qy 781 TCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGA 840	Db 168622 TCATCTCTCTGTTACTGCATCATCATCTCTAAAGCTGTCAACTCCAAGGGCCACCAGA 168681	QY 841 AGGGCAAGGCCTCAAGACGACAGTCATCCTCAGCTTTCTTT	Db 168682 AGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTCTTT	Oy 901 CAIATTAIGEGGATCAGCATCGACTCCTTCATCGAGGAGTCATCAAGCAAG		Oy 961 GTGACTTCGAGAGCATTGTGCA.CAAGTGGATCTCCATCACAGGCCCTCGCCTTCTTCC 1020 The 168802 GTGACTATACAGAGCAAGTGCAAGAGCCCCTCGCCTTCTTCT 168861	1021 PERFORMANCE PROPERTY OF THE PROPERTY OF T	168862 ACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCC	1081	Db 168922 AGCATGCACTCCATGAGCAGAGGTCCAGCTCAGAGATCCTTTCCAAAGGAAAGC 168981	Oy   1141   GGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGGTAAC 1200	1201 CCTTATGCAAAGACTTATATAATATATATATATATATATATAGATAAAGAACTTTTTTATG	169042 ACTTATGCAAAGACATATATATATATATATATATATATGTAAAGAACTTTTTTATG	OY 1257 TTACACATTTTCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTTTTTT	13.7 בעבועים בייריה בהקיייה בהבייריה ביירי היירי ביירי היירים בייריה ביירי ביירי ביירי ביירי ביירי ביירי ביירי		169158 TIGACTGTTGGGAGTTTATGTTCTCTCTAGTTTTTGTGAGGTTTGACTTTATATAAA
/note="assembly_name:Contig67" misc feature 73715, .75185	-,	/note="assembly_name:Contig69" misc feature 76955, 78413	•	/note="		feature		feature	/note="assembly_name:Contig82" misc_feature 8899390670	feature	/note="assembly_name:Contig84" misc_feature 93308	misc_feature 96759. 100576 - /note="assembly name:Contiq86"	misc_feature 100677104988	-	108994112632 /note="assembly	MISC_reature 112/33116328 // // // // // // // // // // // // //	1 ~ -	<pre>misc_leature</pre>	~~	/note="assembly_name:Contig94" misc_feature 138806. 145164 /note="assembly name:Contig96"	misc_feature 145270, 15000 mana.Comity)	misc_feature 15079715998 //october/150787. /15988/19788 //october/15088/1978	160089167244 /note="assembly	isc_feature 167345. /note="	ORIGIN Query Match 85.4%; Score 1602.6; DB 2; Length 175370;	8; Conservative C	OY 121 TGGAACGGATCAGTGAGTATACACTTCTGATAACTACTTCTGAAGAAGTGGGGTCTG 180	181 GAGACTATGACTCCAACAGGAACCCTGCCTTCCGGGATGAAAGGTCCATTTCAATAGGA	168022 GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA	<u> </u>	OY 241 TCTTCCTGCCACACATCATCATCATCATCATCACTGGCATAGGCAATGG 300  Db 168082 TCTTCTGCCACCACATCATCATCATCATCTTGACTGGCATAGATGGATTGG 168141

```
91301 İGTCCCTGTTTCCTTTGCAGATATACACTTCTGATAACTACTGTAGAAGAGGGGTTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match

85.4%; Score 1602.6; DB 2; Length 185215;
Best Local Similarity 97.2%; Pred. No. 0;
Matches 1678; Conservative 0; Mismatches 34; Indels 15; G
NOTE: This is a 'working draft' sequence. It currently consists of 11 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                  of 1044 by in length
f unknown length
of 5511 bp in length
f unknown length
g of 6539 bp in length
f unknown length
g of 15131 bp in length
                                                                                                                                                                ocontig of 1119 bp in length
gap of unknown length
contig of 1418 bp in length
contig of 1322 bp in length
contig of 1322 bp in length
contig of 1044 bp in length
contig of 1044 bp in length
gap of unknown length
contig of 5511 bp in length
contig of 5511 bp in length
contig of 5511 bp in length
contig of 6519 bp in length
contig of 6519 bp in length
gap of unknown length
contig of 6519 bp in length
gap of unknown length
contig of 25329 bp in length
contig of 23329 bp in length
contig of 23329 bp in length
contig of 23528 bp in length
gap of unknown length
contig of 23538 bp in length
gap of unknown length
gap of unknown length
gap of unknown length
contig of 25738 bp in length
gap of unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14 84551: contig of 26738 bp in length 84651: gap of unknown length length 35 122285: contig of 37634 bp in length 36 182285: gap of unknown length 16 185215: contig of 62830 bp in length. 10 tars:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18554. 33684 // hote="assembly_name:Contigl28" 33785. 57713 // hote="assembly_name:Contigl29"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note="assembly_name:Contigl31"
122386. 185215
/note="assembly_name:Contigl32"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1220. .2637
/note="assembly_name:Contig103"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5160. .6203
/note="assembly_name:Contig124"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6304. .11814
/note="assembly_name:Contig126"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57814. .84551
/note="assembly_name:Contigl30"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2738. .5059
/note="assembly_name:Contig122"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="assembly_name:Contig127"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . .1119
note="assembly_name:Contig51"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .185215
/organism="Mus musculus"
/mol type="genomic DNA"
/db_xref="taxon:10090"
/chzomosome="UNK"
/clone="RP23-480N14"
                                                                                                                                                                                                                             2737:
5059:
5159:
6203:
6303:
11814:
11914:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     57813:
84551:
                                                                                                                                                                                                                                                                                                                                                                                           8553:
                                                                                                                                                                                         11120
11220
22638
2738
5060
5160
6304
                                                                                                                                                                                                                                                                                                                                               11815
11915
18454
18554
                                                                                                                                                                                                                                                                                                                                                                                                                                 33685
33785
57714
57814
84552
84552
122286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    91361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                      169517
                                                                                                                                                                                                                                                                                                                                                                    TTTCTGTAAAAGATGGCACTTAAAACCAAAGCCTGAAATGGTGGTGGTAGAAATGCTGGGGG 169577
                                                                                                                                                                                                                169457
                                                                                                                                    169397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AL14/556 185215 bp DNA linear HTG 17-DEC-2003
SEQUENCE, 11 unordered pieces.
                                                                                                                                                                                                                                                      1669
                                                                                                                                                                          1612
                                                                                                                                                                                                                                                                                                                                  TITICIGIAAAAGAIGGCACITAAAACCAAAGCCIGAAAIGGIGGIAGAAAIGCIGGGGT 1729
                  TTCTTAGTAGCTGTTTATCTGTGTGTAGGACTGTAGAACTGTAGAGGAAGAAACTGAACA 1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
Submitted (17-DEC-2003) Genome Sequencing Center, 4444 Forest Park
Parkway, St. Louis, MO 63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1. (bases, 1 to 185215)
                                                                                                                        169398 TCTCTTCATTCCGAGGAGCACCCCACCCCCACCCCCACCCCACCCCATCTTAAATTGT
                                          169278 TICTIAGIAGCIGITIAICIGIGIGIAGGACTGIAGAACIGIAGAAGAAACIGAACA
                                                                                              TTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCATAA
                                                                                                                                                                                                                                                      TIGGITATGCIGIGAIGGITIGITITGGITTTITITIT ---GITGITGTIGITGITTTT
                                                                                                                                                                                                                                                                                              TTTTTTTGTTTGTTTGTTTTCAGGTTTCAAGAGTAGATTGACTTCAGTCCCTACAAAT
                                                                                                                                                                          TCTCTTCATTCCGAGGAGCACCCCACCCCCACCCCCACCCCCATCCTTAAATTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        169638 GTACAGTCTTGTATTACATTGTTAATAAAGTCAATGATAAACTTAA 169684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequencing vector: M13; 0%
Sequencing vector: plasmid; 100%
Chemistry: Dye-primer ET; 0% of reads
Chemistry: Dye-primer ET; 0% of reads
Assembly program: Phrap; version 0.990319
Consensus quality: 196481 bases at least Q40
Consensus quality: 196849 bases at least Q20
Consensus quality: 198294 bases at least Q20
Insert size: 182000; agarose-fp
Insert size: 252319; sum-of-contigs
Quality coverage: 13.47 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center: Washington University Genome Sequencing Center
Center code: WUGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1790 GTACAGTCTTGTATTACATTGTTAATAAAGTCAATGATAAACTTAA 1836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AC147556.1 GI:39979584
HTG; HTGS FHASBI; HTGS_FULLTOP.
HUS musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The sequence of Mus musculus clone Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----- Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----- Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (bases 1 to 185215)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wilson, R.K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wilson, R.K.
                                                                                                                                                                                                                                                          1613
                                                                                                                                                                                                                                                                                                                                                                                                                    1730
                                                                                                                                                                                                                                                                                                                                         1670
                     1433
                                                                                                   1493
                                                                                                                                                                               1553
                                                                                                                                                                                                                                                                                                                                                                                                                                                          169578
                                                                                                                                                                                                                                                                                                                                                                              169518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 5
AC147556
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                      임
                                                                                                                                    g
                                                                                                                                                                            ò
                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                            염
                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                 ò
                                                                                                                                                                                                                                                          8
```

Gaps

240

Db 92497	transmembrane domain receptor (LESTR) from logue of the human HIV-1 entry cofan REFERENCE 2 (bases 1 to 1575) AUTHORS Moepps, 1 to 1575) TITLE Direct Submission JOURNAL Submitted (19-JUL-1996) B. Moepps, Univ. Pharmacology/roxicology, Albert-Einstein Pharmacology/roxicology, Albert-Einstein REWARK Revised by author 11-NOV-96 COMMENT On Nov 12, 1996 this sequence version riferance of the sequence version in the source of the sequence version in the sequence version
	1021   ACTGTTGCCTGAACCCCATCCTTAGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCC   1080
<ul><li>品格的 <ul><li>品格 <ul><l><li>品格 <ul><li>品格 <ul><l><li>品格 <ul><li>品格 <ul><l><li>品格 <ul><li>品格 <ul><l><li>品格 <ul><li>品格 <ul><l><li>品格 <ul><li>品格 <ul><l><li>品格 <ul><li>品格 <ul><li>品格 <ul><li>品格 <ul><li>品格 <ul><li>品格 <u< td=""><td>6 2 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6</td></u<></li></ul></li></ul></li></ul></li></ul></li></ul></li></l></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></l></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></l></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></l></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></l></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></l></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul>	6 2 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6

```
TIGATCCTCAGCTGTTGCTGCATAA 1552
                                                                                                                                                                                                                                                                                                                       AGATTGACTTCAGTCCCTACAAAT 1789
                                   ||
TTTTGTTGTTTTTTTTGTTTT 92856
GAGGITIGACITAAITIAIAAA 92556
                                                                                                                                                                                             ACCCCACCCATCTTAAATTGT 92796
                                                                                                                                                                                                                           TT---GTIGITGTIGITITIT 1669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   iversitaet Ulm,
sin Allee 11, D-89081 Ulm, FRG
                                                                                                                                                                               ACCCCACCCATTCTTAAATTGT 1612
                                                                                                                                                                                                                                                                                                                                                                                                                                                        IA linear ROD 11-NOV-1996 seven transmembrane domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      erschik,P.
of a leukocyte-derived seven
from mouse: a murine
factor fusin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ı, Vertebrata; Buteleostomi;
Lathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ansmembrane domain receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     replaced gi:1657351.
                                                                                                                                                                                                                                                                                                                                                                      GATAAACTTAA 1836
||||||||||||
|GATAAACTTAA 93023
```

```
1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1476
                                                                                                                                                                                                                                                   1009
                                                                                                                                                                                                                                                                                                                                        1069
                                                                                                                                                                                                                                                                                                                                                                                1039
                                                                                                                                                                                                                                                                                                                                                                                                                             1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear ROD 02-APR-1997 seven transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Moepps, B., Frodl, R., Kessler, H. and Gierschik, P. Cobb, Cloning and genomic organization of a leukocyte-derived seven transmembrane domain receptor (LESTR) from mouse: a murine homologue of the human HTV-1 entry cofactor fusin
                                                                                                                                                         949
                                                                                                                                                                                                      919
                                                                                                                                                                                                                                                                                           979
                          799
                                                                      889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    seven transmembrane domain receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>actritrinangtracacarritrocagararaagagacrigaccagricrigagagrirrit</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCCGGCATCGTCATCCTCTCTCTGTTACTGCATCATCATCTCTAAGCTGTCACACTCCAA
                                                                                                                                                         CTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCAT
                                                                                                                                                                                                      crecrescreteararareresearcascarcacarcarerrearerrararerrare
                                                                                                                                                                                                                                                 CAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCT
                                                                                                                                                                                                                                                                             CAAGCAAGGATGTGACTTCGAGAGCATCGTGCACAAGTGGATCTCCCATCACAGAGCCCT
                                                                                                                                                                                                                                                                                                                                      CGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCCAAGTTCAA
                                                                                                                                                                                                                                                                                                                                                                                   CGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCAGCTAACCCTTATGCAAAGACTTATATA----ATATATATATATATATATAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CICCAGCIAACACITAIGCAAAGACAIAIAIAAATAIAIAIAIAIAIAIAIAIAIGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u> AGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAGGACTGTAGAACTGTAG</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGACCTGTGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGAAGAAACTGAAATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTC
                                                                                                                 GGGCCACCAGAAGCGCAAAGGCCCTCAAGACGACAGTCCATCCTCATCCTAAGCTTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTTTTTATGTTACACATTTTCCAGATATAAGAGACTGACCAGTCTTGTACAG----TT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Buteleosto
Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCTGTTGCTGCATAATCTCTTCATTCCGAGGAGCACCCCACCCCACCC 1586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCTGTTGCTGCATAATCTCTTCATTCCGAGGAGCACCCCACCCCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3770 bp DNA gene encoding leukocyte-dervied aptor, strain B6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     X99581
X99581.1 GI:1924959
X99581.1 Gi:1924959
Heatr gene; leukocyte-derived se
Mus musculus (house mouse)
Mus musculus
Eukaryota; Metazoa; Chordata; Cr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MMLESTRGN
M.musculus gene encoding
domain receptor, strain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                           920
                                                                                                                                                                                                                                                                                                                                                                                   980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1520
                                                                                                                 800
                                                                                                                                                                                                                                                                                                                                        1010
                                                                                                                                                                                                                                                                                                                                                                                                                             1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1362
                            740
                                                                    830
                                                                                                                                                         890
                                                                                                                                                                                                      860
                                                                                                                                                                                                                                                   950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
MMLESTRGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
경
원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P
                          8 8
                                                                                                     8 8
                                                                                                                                                                                        원
                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        $ B $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ∂
                                                                                         /protein id="CAA67894.1"
/db_xref="GT:1666649"
/db_xref="GT:1666649"
/db_xref="GOA:P70658"
/db_xref="GOA:P70658"
/db_xref="GOA:P70658"
/db_xref="GOA:P70658"
/db_xref="GOA:P70658"
/db_xref="GOA:P70658"
/db_xref="GOA:P70658"
/db_xref="GOA:P70658"
/db_xref="GOA:P70656"
/db_xref="GOA:P70666"
/db_xref="GOA:P70666"
/db_xref="GOA:P70666"
/db_xref="GOA:P70666"
/db_xref="GOA:P70666"
/db_xref="GOA:P70666"
/db_xref="GOA:P70666"
/db_xref="GOA:P70666"
/db_xref="GOA:P7066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ñ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTGGGTTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITCAATAGGATCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGG 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            260 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGAGGAGCATGACGGACAA 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTIGATGCCATGCCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  79
                                                                      domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u> AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTACACTGTCAACCTCTACAGCGGTTCTCATCCTGGCCTTCATCAGGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTCTATGTGGGGGGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGACGTCAGCCAGGGGGACATCAGGGGGGATGACAGGTACATCTGTGACCGCCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGACGTCAGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCCGATAGCCTGTGGATGGTGGTGTTCAATTCCAGCATATAATGGTGGGTCTCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAAATGGTGGGTCTCGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCCGGCATCGTCTCTCTCTGTTACTGCATCATCTTCTTAAGCTGTCACACTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20 GCAGGTAGCAGTCACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTTGATGCCATGGCTGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACACTGTCAACCTCTACAGCGGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ccrcecrarrerccaceccaccaccaccaccacccaaceccaaceacaccccacccccaaaaccc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTOTATGTGGGCGTCTGGATCCCAGCCCTCCTCAGACTATACCTGACTTCATCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        regrecreegraaceaceacegergragaee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1474.8; DB 10; Length 1575;
Pred. No. 5.1e-296;
0; Mismatches 12; Indels 13;
                                                                      transmembrane
                                                                    seven
                       /gene="lestr"
/codon_start=1
/product="leukocyte-derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAGGTAGCAGTGACCCTCTGAGGCGTT7
                                                                                                                                                                                                                                                                                                                                                                                                                                                78.6%;
larity 98.4%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 1525; Conserv
                                                                                                                                                                                                                                                                                                                                                           polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                410
  SCO
```

8 8 8

qq

8 6 8 6

8 8 8 8

g

\$ A

5 8 5 8 5

g

 $\delta$ 

540

480

9

2945

2885

720

3005

006

840

3065

960

```
raariacerrritriteinierrierricaneraardaereretadecaddacereres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1428 CCAAGTTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAGGAAGAACT 1487
                                                                                                                                                                                                                 2646 ACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCTATTG
                                                                                                                                                                             2886 TGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGTCTCGTCCTGCCCGGCATCG
                                                                                                                                                                                                                                                                                                                                                                                                 2946 TCATCCTCTCTGTTACTGCATCATCATCTCTAAGCTGTCACACTCTCAAGGGCCACCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGGGTCATCAAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3126 GTGACTTCGAGAGCATCGTGCACACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTGTTGCCTGAACCCCATCCTCTATGCCTTCGGGGCCAAGTTCAAAAGCTCTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3186 ACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCATGCACTCAACTCCATGAGCAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACTTAATTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTATTGACTGTTGGGAGTTTATGTTCTCTCTAGTTTTTGTGAGGTTTGACTTAATTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2526 ACCTGTCAGTGGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCA
                                                                                                         ACCICIACAGCAGCGITCICAICCIGGCCTTCAICAGCCTGGACCGGGIACCICGCCATTG
                                                                                                                                                             AGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGATAGCC
                                                                                                                                                                                                                                                                                                                              TGTGGATGGTGGTGTTTCAATTCCAGCATAATAGTGGTGGGTCTCATCCTGCCCGGCATCG
                                                                                                                                                                                                                                                                                                                                                                                  TCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                        CATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u> GTGACTTTCGAGGGCATTGTGCACACAGTGGGTTCTCCATCACAGAGGCCCTTCGCTTCTTCC</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTTATGCAAAGACTTATATA----ATATATATATATATGATAAAGAACTTTTTATG
                                                    TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA
                                                                                                                                                                                         2706
                                                                                                                                                                                                                                                                                                   2826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1373
                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                     421
                                                                                                           481
                                                                                                                                                                541
                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                  8 % a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
9
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 6 8 6 8 6 8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                         g
                                                                                                                                                      8 8
                                                                                                                                                                                                            S S
                                                                                                                                                                                                                                                                       8 B 8
                                                                                                                                                                                                                                                                                                                                                                                                                                     6 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 6
                                                                                                         ò
                                                                                                                             g
                                                  ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TIYPIIELTGIVGNGLVILVMGYQXKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMA
DWYFGXFLCKAVHIYYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYV
GVWIPALLITYPDFIFADNSQGDISQGDDRYICDRLYPDSLWWVYFQPQHIWVGLVLP
GIVILSCYCIIISKLSHSKGHQKRKALKTTVILLLAFFACWLPYYVGISIDBFILLGY
IKQGDPFBJYHKWISJTEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLK
ILSKGKRGHSSVSTESESSSFHSS"
                                                                                                                                                                                                                                                                                                                                                                                                                         'protein id="CAA67893.1"
'db_xref="G1:166644"'
'db_xref="G3:1566644"'
'db_xref="S4DA:P70658"
'db_xref="S4ISPROT:P70658"
'translation="MEPISVSIXTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2465
                                                                    FRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ć,
                                                                                                                                                   FRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                       Moepps, B.
Direct Submission
Submitted (19-JUL-1996) B. Moepps, Universitaet Ulm,
Pharmacology/Toxicology, Albert-Einstein Allee 11, D-89081 Ulm,
Revised by [3]
3 (bases 1 to 3770)
                                                                                                                                                  Ulm,
                                                                                                                                                                                                                                                                                                                                                                                                 seven transmembrane domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rerecerentrecerriecaganahadacirciganaachererendaadaadideericie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGAACCGATCAGTGTGAGTATATACACTTCTGATACTACTCTGAAGAAGTGGGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13; Gaps
                                                                                                                                   Submitted (02-APR-1997) B. Moepps, Universitaet Ulm, Pharmacology/Toxicology, Albert-Einstein Allee 11, D-89081 On Apr 3, 1997 this sequence version replaced gi:1666646.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1384.6; DB 10; Length 3770;
Pred. No. 3.2e-277;
0; Mismatches 24; Indels 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="splice variant/intron"
11. .2305
                                                                                                                                                                                                                                            /db_xref="taxon:10090"
/haplotype="diploid"
/tissue_type="thymus"
/dev_stage="6-8 weeks old"
                                                                                                                                                                                                                                                                                                                                                                                       codon_start=1
product="leukocyte-derived
                                                                                                                                                                                                                                                                                                                                .3364)

    .3770
    /organism="Mus musculus"
/mol_type="genomic DNA"
/strain="B6"

                                                                                                                                                                                                                                                                                                                           join(90. 110,2306. ... /gene="lestr" join(90. 110,2306. .:/gene="lestr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /number=1
2306. .>3770
/number=2
3693. .3698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                105. .2305
/gene="lestr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'gene="lestr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73.8%;
ilarity 97.5%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                 eceptor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 1442; Conserv
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               polyA_signal
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        intron
             REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                              REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 exon
                                                                                                                                                                                                                                                                                                                                 gene
 JOURNAL
                                                                                                                                                                                                                                                                                                                                                          CDS
                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à a à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

1140

3365

3425 1312 1372

3545

1427

300 450 360 510 420 570 480 630 540 9 600 750 099 810 720 870 780 930 840 990

us-09-367-052-1.rge

```
TAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGCTGACCTCCTCTTTGTCA
                      TCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGC
                                                                                                                                                                                                      GTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCT
                                                                                                                                                                                                                                                                   TCATCAGCCTGGACCGCTACCTCGCCATTGTCCACGCCACCAACAGTCAAAGGCCAACAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACATCTGTGACCGCCTTTACCCCGGATAGCCTGTGGATGGTGTTTTCAATTCCAGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721 CCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGAGCCCTCAAGACGACAGTCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCCAACTCCATGAGCAGGCT
      TCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGC
                                                                TAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTCCTCTTTGTCA
                                                                                                                                                       reacacteceerreageagricargecargecraactegractraggaaarritre
                                                                                                                                                                                                                                                TCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGGTCAAAGGCCAAGGA
                                                                                                                                                                                                                                                                                                           AACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCGTGACTA
                                                                                                                                                                                                                                                                                                                                       AACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTA
                                                                                                                                                                                                                                                                                                                                                                                                    TCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGA
                                                                                                                          TCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTTTGGGGAAATTTTTGT
                                                                                                                                                                                      GTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCT
                                                                                                                                                                                                                                                                                                                                                                       ACATCTGTGACCGCCTTTACCCCCGATAGCCTGTGGATGGTGTTTTCAATTCCAGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCCTGTTACTGCATCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACGACAGTCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCATCCTAGCTTTCTTTGCCTGCTGGCTGCCATATTATGTGGGGGATCAGCATCGACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCATCCTAGCTTTCTTTGCCTGCTGCTGCTATTATGTGGGGATCAGCATCGACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCATCCTTTTGGGGGTCATCAAGCAAGGATGTGACTTCGAGAACATCGTGCACAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOTICCATICACAGGGCCCTICGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTCCATCACAGAGGCCCTCTTCTTCCACTGTTGCTTGAACCCCATCCTCTATGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TATATATGATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAAGAGACTGACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rarararaaaaacrirrirargraccearrircaaararaaaaacraacaar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTGTACAGTTTTTTTTTTT 1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITGTACAGTITITITITITI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1141
                                 181
                                                                                           241
                                                                                                                          391
                                                                                                                                                         301
                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                511
                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                          571
                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                 691
                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201
    271
                                                                331
                                                                                                                                                                                    451
                                                                                                                                                                                                                                                                                                                                                                     631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1291
                        20
                                                           र्घ क्ष ठ
                                                                                                                                               음 성 음
                                                                                                                                                                                                                                       8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 8 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 6 6 6 6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /produce figal homolog"
/produce figal homolog"
/produce id= figal homolog"
/brotein id= "AABO7725 1"
/db xref="G1:157135"
/translation= "MEDISVSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP
TIYFIIFITAGIVGNGIVILLWOYCKKIKASMTDKYLAILSDALLEVILLFWANDAM
TIYFIIFITAGIVGNGIVILLWOYCKKIKASMTDKYLAILSTAFRANDAM
TIYFIIFITAGIVGNGIVILLAFISLDRYLAILSTANSQRERKLARAVYV
GVWIPALLITIPDFIFADNSQGDISQGDDRYLICARLAISSCREAXVV
INCQCOPESIVHKMISITEALBFFHCLINFILLAFFACKLAPRACWLEYVOISIDSFILLGY
ILSKGGRGGHSSVSTESESSSFHSS"
ILSKGKRGGHSSVSTESESSSFHSS"
                                                1547
                                                                             3725
30-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCT 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCT 180
                                                                                                                                                                                                                                                                                                     Mus musculus
Eukaryota, Metacoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bummalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 1223)
Heesen,M., Berman,M.A., Benson,J.D., Gerard,C. and Dorf,M.E.
Cloning of the mouse fusin gene, homologue to a human HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                GAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTG
                                              GAACATTCCAGAATGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGAACCCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCACCACGCTGTAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         School, 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCACCACGGCTGTAGAGGGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64.8%; Score 1216.6; DB 10; Length 1223; llarity 99.7%; Pred. No. 2.4e-242; Conservative 0; Mismatches 4; Indels 0;
                                                                                                                                                                                                                   R0D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="seven transmembrane spanning receptor; chemokine-receptor like"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Harvard Medical
USA
                                                                                                                                                                                                                                                                                                                                                                                                                  97113334

97113334

8955194

E (bases 1 to 1223)

S Hesen, M., Berman, M.A., Gerard, C. and Dorf, M.E.

Direct Submission

Submitted (02-JUN-1996) Pathology, Harvard Medical

Longwood Avenue, Boston, MA 02115, USA

Location/Qualifiers
                                                                                                                                                                                                                 mRNA linear complete cds.
                                                                                                                                CATAATCTCTTCATTCCGAGGAGCACCCCACCCCCACCC 3764
                                                                                                        CATAATCTCTTCATTCCGAGGAGCACCCCACCCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                               Immunol. 157 (12), 5455-5460 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Mus musculus"
/mol type="mRNA"
/strain="129/sv"
                                                                                                                                                                                                               MMUS musculus fusin homolog mRNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                        Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          codon start=1
                                                                                                                                                                                                                                              U59760
U59760.1 GI:1527134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                 co-factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Simi:
Matches 1219; (
                                                                           3666
                 3606
                                                                                                        1548
                                                                                                                                     3726
                                                1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                 RESULT 8
MMUS9760
LOCUS
DEFINITION
                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                  g
                g
                                           ò
                                                                                               8
                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

1050

900

960

1170

```
/clone="CH230-108A24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 64.18
Matches 1465; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                 table.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                          MILTON, DESENT TO 19049, 19.

10 Jases I to 19049, 19.

10 Jases J to 19049, 19.

11 Jases J Allen, C. Alsbrocks, S. Amin, A. Agguano, D. Anyalebechi, V. Angeria, A. Agguano, D. Bandaranake, D. Barber M. Barnetead, M. Benahmed, F. Biswalo, K. Bladt, J. Blankenburg, K. Blyth, P. Brown, M. Bladt, J. Blankenburg, K. Blyth, P. Brown, M. Calderon, B. Cardenas, V. Carer, K. Caner, S. Chen, Y. Chen, Z. Chen, J. Chen, Z. Chen, Z. Chen, Y. Chen, Z. Chen, Z. Chen, Z. Chen, Y. Chen, Z. Chen, Z. Chen, Y. Chen, Z. Chen, 
                                                  AC122097 190149 bp DNA linear HTG 15-NOV-2002 Rattus norvegicus clone CH230-108A24, WORKING DRAFT SEQUENCE, 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (22-MAY-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                 Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae,
                                                                                                                                                                AC122097.4 GI:2S008263
HTG, HTGS PHASE1; HTGS DRAFT; HTGS_FULLTOP.
Rattus norvegicus (Norway rat)
Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rat Genome Sequencing Consortium
                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 190149)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (bases 1 to 190149)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 to 190149)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Worley, K.C.
Direct Submission
                                                                                                           unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1
                                                     LOCUS
                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                     ACCESSION
                                                                                                                                                                VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
RESULT 9
AC122097
                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
```

```
Direct Submission

Submitted (15-007-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

Baylor Plaza, Houston, TX 77030, USA

On Nov 15, 2002 this sequence version replaced gi:23269619.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.imc.edu/projects/rat/). Each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence contigs are consist entirely of whole genome shotgun sequence reads fold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both hed sequences and whole genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).
NOTE: This is a 'working draft' sequence. It currently consists of 4 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20640 cerdrecertrerrerrescadiaracactressariaderecegadadadadere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 179 IGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGAIGAAAACGTCCATTTCAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20700 TGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGAAAACTTCAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        239 GAICTICCIGCCCACCAICTACTICATCATCTICTIGACTGGCATAGTCGGCAATGGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTGTGAAGAGTGGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62.3%; Score 1169.4; DB 2; Length 190149; 84.1%; Pred. No. 2.9e-232; Live 0; Mismatches 156; Indels 122; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40069 40167; contig of 40067 bp in length
40068 40167; gap of unknown length
40168 114660; contig of 74493 bp in length
114661 114760; gap of unknown length
114761 188186; contig of 73426 bp in length
188187 190149; contig of unknown length
188287 190149; contig of 1863 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Center code: BCM
Web Site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Rattus norvegicus"
/mol_type="genomic DNA"
/db_xref="taxon:10116"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..... Genome Center
Center: Baylor College of Medicine
```

us-09-367-052-1.rge

```
MMLCR12
                        1081
                                                              1200
                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                   1380
                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
MMLCR12
LOCUS

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
FEATURES
                        8 B 8
                                                                                                                                        ద
                                                                                                                                                                                   à
                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                      299
                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                         359
                                                                                                                                                                                                                                                                                                                                                                                                                            419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420 TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAAGCATGACGGACAAGAACTACCGGCTGC 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                899
                                                                                                                                                                                                                                         240 IGHCCTTTCCTTTCCAGATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTG
                                                                                                                                                                                                                                                                                                                                                                             840 TGTGGATGGTTGTGTTTCAATTCCAGCATATAATGGTGGGGTCTCATCCTGCCCGGCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1140 ACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCC
                                                                                                                                                                                                              TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTG
                                                                                                                                                                                                                                                                                                 GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480 ACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421 TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATTACACTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481 ACCICIACAGCAGCGTICTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600 ACCICTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCGTCTGGATCCCAGCCCTCCTCACTATACCTGACTTCATCTTTGCCGACGTCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720 GCGTCTGGATCCCAGCCCTCCTCTGACTAACCTGACTTCATCTTTGCCGACGTCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661 AGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTGGATGGTGGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781 TCATCCTCTCCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCCACCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1080 GTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTGITGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCC
                                                                                                                                                                                                                                                                                                                       GAGACTATGACTCCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361 ACCTGTCAGTGGCTGACCTCTTTGTCATCACTCCCCTTCTGGGCAGTTGATGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540 TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC
                                                                                                                                                                     Gaps
                                                                                                                           Similarity 98.4%; Pred. No. 4.9e-229;
Similarity 98.4%; Pred. No. 4.9e-229;
34; Conservative 0; Mismatches 19; Indels 0;
/product="CXCR-4"
/standard_name="CXC chemokine receptor 4'
/number=2
/function="receptor for chemokine SDF-1"
                                                                                                                           Query Match
Best Local Simi:
Matches 1164;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          196
                                                                                  DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             상 점
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
```

```
1320 CCTTATGCAAAGACTTATATAAAATATATATATATATATGATAAAGACTTTTTATGTTAC 1379
                                                                                                                                                                ROD 18-NOV-1997
                                                                                                                                                                                                                                                                                            1141 GGGGTGGACACTCTTCCGTCTCCACGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAAC
1260 GGGGTGGACACTCTTCCGTCTCCACGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAAC
         CCTTATGCAAAGACTTATATATATATATATATATATGATAAAGAACTTTTTTATGTTAC
<u> AGCATGCACTCCAATGAGCAGGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGC</u>
                                                                                                    ACATTTCCAGATATAAGAGACTGACCAGTCTTGTACAGTTT 1303
                                                                                                                                                                linear
                                                                                                                                                                 mRNA
                                                                                                                                                                                                                                                                                                                                                                /organism="Mus musculus"

/mol_type="mRNA"

/mol_type="mRNA"

/db_xref="taxon:10090"

/tissue_type="thymus"

/dev_stage="adult"

/gene="lor-1"

1. .1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SKGKRGGHSSVSTESESSSFHSS"
                                                                                                                                                                1180 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <1. .15
/gene="lcr-1"
/number=1
16. .>1180
/gene="lcr-1"
```

funther=2   60.9%;   Score 1143.2%   DB 10%   Length 1180;	Db   971   CCATGAGCAGAGGCTCCAGCCT   1156   CCGTCTCCAGGAGTCAGAATC   1031   CCGTCTCCAGGAGTCAGAATC   CCGTCTCCAGGAGTCAGAATC   CCGTCTCCAGGAGTCAGAATCA   CCGTCTCCAGGAGTCAGAATATATATATATATATATATAT	RESULT 12 AC107097/C LOCUS DEFINITION RALTUS norvegicus clone *** ACCESSICN AC107097.5 GI:30580624 VEXWORDS HTG; HTGS PHASE2; HTGS COURCE SOURCE RALTUS norvegicus (Norwa ORGANISM RALTUS norvegicus CONTANTANTANTANTANTANTANTANTANTANTANTANTAN	REFERENCE 1 (Dases 1 to 240931) AUTHORS Muzny, D.Marie., Metzker, Allen, C., Allen, H., Alek Anjalebechi, V., Alek Anyalebechi, V., Bandaranaike Baldwin, D., Bandaranaike Biswalo, K., Blair, J., Briswalo, Cardenas, V., Carter, K., Chack, C., But Chacko, J., Chaver, D., Cleveland, C., Cockrell, Bandarana, M.L., Davis, C., Davis, M.L., Davis, C., Dengalo, O., Davis, C., Dengalo, C., Charle, Dengalo, O., Densen, S., I., Davis, C., Dengalo, C., E., Dengalo, C., E., Dengalo, C., Dengalo	Egan, A., Escotto, M., Eur Fernandez, S., Finley, M., Fraser, C.M., Gabish, W., Gebregeorgis, E., Geer, K. Gunaratene, P., Haaland, W. Harvey, Y., Havlak, P., Hernandez, R., Hines, S., Hollins, B., Howells, S., Jackson, L., Jacob, L., J Karpathy, S., Kelly, S., Karpathy, S., Kelly, S., Liu, J., Liul, W., Liul, S., Liu, J., Liul, W., Liul, S., Lorensthewa, L., Loulseg	Manbamarin, Manbar, Manbar, Manbar, Manbar, Manbar, Manbar, Mariosa, Milosad, M. Morris, K., Morsan, M. Morris, K., Morsan, M., Morris, K., Manbar, Manbar, Manbar, Manbar, M., Morris, M., Morris, M., Morris, M., Moronu, Paternak, S., Paul, H., Plopper, F., Poindexter, Puazo, M., Quiroz, J., Ratily, M., Rives, C., Rodkey, T., Rosanders, M., Savery, G., Shetty, J., Shvartsbern, Sheimle, M., Strong, R., Steinle, M., Strong, R., Steinle, M., Strong, R., Taylor, T., Thomas, N., Thusas, R., Warren, Wang, S., Warren, Wang, S., Warren, Warren, Wang, S., Warren, Warren, Wang, S., Warren, Wang, S., Warren, Warren, Wang, S., Warren, Warren, Warren, Wang, S., Warren, Warren, Warren, Wang, S., Warren,
SHORTH STREET OF THE STREET OF	/number=2  /number=2  Query Match 60.9%; Score 1143.2; DB 10; Length 1180;  Best Local Similarity 99.1%; Pred. No. 4.3e-227;  Matches 1160; Conservative 0; Mismatches 8; Indels 2; Gaps  136 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCA  11 TCAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAAGACTATGACTCA  11 TCAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGGAGCTACGACTCACACACA	256 TCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG  131 TCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG  316 GTTACCAGAAGAAGGTAAGGAGCATGGCATAGTACCGGCTGCACTGGTCATGG  316 GTTACCAGAAGAAGGTAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTG  191 GTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTG  376 ACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACT  251 ACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACT  251 ACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACT  251 ACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACT  251 ACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACT  1	436 TTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTGTACAGGGGGGAAGTTTTTTTT	491 CCCCCCCTCCACCTACTTCTTTGCCCACGTCAGGCCAGGGGGGACATCAGTC 676 AGGGGGATGACGACTACTTTGTGACCGCTTTACCCCGATGGCCAGGGGGACATCAGTC 676 AGGGGGATGACAGGTACATCTGTGACGCCTTTACCCCGATAGCCTGTGGATGGTGGTGT 736 TTCAATTCCAGCATATAATGTGGGGTCTCATCCTGCCGGCATCGTCATCCTCCTGTT 611 TTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCGGCATCGTCATCCTCCTGTT 796 ATTGCATCATCATCATCATCATCGTGGTGGTCTCATCCTGCCGGCATCGTCCTGTT 797 ATTGCATTCTAATCTCTAAGTGGTGTCATCCTGCCCGGCATCGTCCTGTT 798 ATTGCATCATCTTCTAAGCTGTGTCATCCTCCCCGCTCA 797 ATTGCATCATCATCATCATCATCATCATCATCATCATCATCATC	

```
misc_feature
                                                                                                                             misc_feature
                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         980
                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ВЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                          Notety. A. C. Burnission

AL Submitted (16-JAN-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

3 (bases 1 to 240931)

33 Rat Genome Sequencing Consortium.

Direct Submission

Direct Submission

AL Submitted (13-MAY-2003) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On May 13, 2003 this sequence version replaced gi:23115278

The Sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the Acture table below represents a cafficial in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold') within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       * NOTE: Estimated insert size may differ from sequence length

* (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

* NOTE: This is a 'working draft' sequence. It currently

* consists of 1 contigs. Gaps between the contigs

* are represented as runs of N. The order of the pieces

* is believed to be correct as given, however the sizes

* of the gaps between them are based on estimates that have

* provided by the submittor.

* This sequence will be replaced

* by the finished sequence as soon as it is available and

* the accession number will be preserved.

* Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Williams, G., Willson, R., Wleczyk, R., Wooden, H., Worley, K., Wright, D., Wright, R., Wu, J., Yakub, S., Yen, J., Yoon, L., Yoon, V., Yu, F., Zhang, J., Zhou, J., Zhou, X., Zhao, S., Dunn, D., von Niederhausern, A., Weiss, R., Smith, D.R., Holt, R.A., Smith, H.O., Direct Submission
Uppublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    organism="Rattus norvegicus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .1249
/note="wgs_end_extension
clone_end:Sp6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complement (5161. .5587)
/note="clone boundary
clone end:Sp6
site:EcoR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /mol_type="genomic_DNA"
/db_xref="taxon:10116"
/clone="CH230-175010"
                                                                                                                                              2 (bases 1 to 240931)
Worley, K.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                              REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
```

```
237378 CCTCTTTGTCATCACACTCCCCTTCTGGGCACTGGACGCCATGGCTGACTGGTACTTTGG 237319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          237318 daaarrirandraaddchdrecaharcahchacaccarcaaccriaacadcadraficr 237259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             237258 carcerecerreareacerecaecesecracerrecearierecaecececeaecea 237199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   237139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   680 GGATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTGTTCA 739
237089 ----GGCAGGTACATCTGTGACCGCCTTTACCCCGACAGCCTGTGGATGGTGGTGTGTCA 237034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     336853 carcearrecritearecritificas derearcas de accarcitas de carceares de 236794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        236793 GCACAAGTGGATCTCCCATCACGGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCAT 236734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        237558 GGAACCCTGCTTCCGGGATGAAACGAAAACTTCAACAGGATCTTCCTGCCCACCATCTA 237499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     237033 griccadcacarcarderedefectcarccreccedecarcerearcarecreterereres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              236913 Tacggreatectrarectrocriticirisectionidentectrocriativection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCAT 1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               800 CATCATCTTTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGCCTCAAGAC 859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            860 GACAGICAICCICAICCIAGCITICITIGCCIGCIGGCIGCCAIALIAIGIGGGGGAICAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              200 GGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 237198 GAGGCCGAGGAAGCTGCTGCTGAAAAGGCCGTCTATGTGGGTGTGTTTGAATCCCGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             380 CCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       500 CATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         560 AAGGCCAAGGAAACTGCTGGTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                237138 CCTCCTGACTATCCCTGACATCATCTTCGCCGATGTCAGCCAGGGGAC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            740 ATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        260 CITCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           320 CCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    440 GAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                               Length 240931;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 59.4%; Score 1114; DB 2; Best Local Similarity 84.2%; Pred. No. 9.8e-221; Matches 1400; Conservative 0; Mismatches 140;
end_sequence:BH357332"
complement(232579. .233220)
/note="clone_boundary
clone_end:T7_
site:EcoRI
                                                                                                                                                                                                                                               /note="wgs end_extension
clone end:T7"
                                                                                                                                                         end_sequence:BH357330"
235468. .237558
```

ò

ò g  $\dot{\circ}$ g ò

```
TITETIFITGIVGNOLVILVMGYOKKLRSMTDDYREHELSVADILFFYTTEFFRAVDAMA
DWYFGKFLCKAVHIIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYDAMA
DWYFGKFLCKAVHIIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYV
GVWIPALLITIPDFFRADVSQGDISQGDDRYICDRLYPDSLWMVVFCFYHINGLILF
GIVILSCYCITISKLSHSKOHQKRKALKTTVILILAFFACWLPYYVGISIDSFILLGV
IKQGDPFESTVHKMISTTEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLK
ILSKGKRGGSVSTESESSSFHSS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /codon_start=1
/product="fusin"
/protein_id="AAC51953.1"
/db_xref="GI:8645915"
/translation="MEPISVSIXTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rerecerentrecitrices a granda de concita de la concita de la constanta de la co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAAGGGATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGATCCTGGTCATGGGTTACCAGAAGAAGTAAGGAGCATGACGGACAAGTACCGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rgarccregrcaregerraccagaagaagcraagaagcaraaccareaceacaagraccecrec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTTCCTGCCCACCATCTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCIGICAGIGGCIGACCICCICITIGICATCACACICCCCTICIGGGCAGITGAIGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                           9/5104

2 (bases 1 to 3366)

Hessen,M., Berman,M.A., Gerard,C. and Dorf,M.E.

History Submission

Submitted (30-JUL-1996) Pathology, Harvard Medical School,

Longwood Avenue, Boston, MA 02115, USA

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      o'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 3366;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                   /organism="Mus musculus"
/mol_type="genomic DNA"
/strain="CS7BL/60"
1. 3366
/gene="CXCR-4"
join(1. .21,2308. .3366)
/gene="CXCR-4"
/gene="CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1055; DB 10;
Pred. No. 1.1e-208;
0; Mismatches 15;
   Immunol. 157 (12), 5455-5460 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 intron 1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       note="alternate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="alternate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2308. .3366
/gene="CXCR-4"
/number=2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene="CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene="CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene="CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22. .2307
/gene="CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  56.2%;
98.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . >2307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          number=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best_Local Similarity 98.6
Matches 1064; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           number=1
      J. Immunc
97113334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                intron
                                                                                                                                                                                                                                                                   source
JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               236314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     236613 CTCCACAGAGTCAGAATCCTCAAGTTTTCACTCCAGCTAACACTTACGCAAAGACATATA 236554
                                                                                                                                                                                                                                                                                                                                                                                                                                          236494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          236434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            236433 CICTAGITITIGIGIGIGIGIGIGIGIGIĞİĞAĞGİTİTĞACİTPALITATATAAATAİTGGT 236374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             236253 CTCCAGAATGTGTGGTAAATCGGATAAAGCTAGAAGTGACCTCAGCTGTCGCTGCATAA 236194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTGGTTGTGCTGTGTG-----GTTTC 236139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----GTTTTTTCTTTCAGTTTTCAAGGGTGGATTGATTTCAGTACCTACAAATGTA 236034
                                                                                                                                                                                                         236614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1432
                                                                                                                                                                                                                                                                                                                                                                                1270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1733 TTTTGTTTGTTTTTTTCAGTTTTCAAGAGTAGATTGACTTCAGTCCCTACAATGTA 1792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTGTAAAAGATGGCACTTAAAACCAAAGCCTGAAATGGTGGTAGAAATGCTGGGGGTTTT 1732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ROD 13-DEC-1996
                                  1040 CCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCAT 1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. I (bases I to 3366)
Heesen,M., Berman,M.A., Benson,J.D., Gerard,C. and Dorf,M.E. Cloning of the mouse fusin gene, homologue to a human HIV-1 co-factor
                                                                             236733 CCTCTACGCCTTCCTCGGGGCCAAATTCAAGAGCTCCGCGCAGCATGCACTCAATTCCAT
                                                                                                                                                                                TICTTAGTAGCTGTTTATCTGTGTGTAGGACTGTAGAACTGTAGAGGAAGAAACTGAACA
                                                                                                                                                                                                                                                                CTCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATA
                                                                                                                                                                                                                                                                                                                                                                                   TAATATATATATATATAT-----GATAAAGAACTTTTTTATGTTACACATTTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                     ----TGTTTTTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            236373 TTTTTCTGTTGTTTGTCTTTCACGTGAATGAGTGTCTAGGCAGGACCTGTGGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTCTTCATTCCGAGGAGCACCCCACCCCCACCCCCACCCCCACCCCCATTTTAATTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rchgragaagarggcactraaaaccaaaggccrgaaarggr-aragaaargcrgg----
                                                                                                                                                 GAGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGGGACACTCTTCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TICCAGAATGIGIGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITATGITCCICT-----AGITITITGIGAGGITIGACTIAATITATAAATAT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGTCTTGTATTATGTTGTTAATAAAAGTCAATGGTAAACTT 235992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MMU65580 3366 bp DNA linear Mus musculus fusin (CXCR-4) gene, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1793 CAGTCTTGTATTACATTGTTAATAAAAGTCAATGATAAACTT 1834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             U65580.
U65580.1 GI:1731650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1613
                                                                                                                                                 1100
                                                                                                                                                                                                                                                                                                                                                                                   1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1553
                                                                                                                                                                                                                                                                   1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                236193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  236159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     236138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       236085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       236033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
MATGES80
LOCTUS
DEPTNITION
ACCESSION
VERSION
VERSION
CETWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
```

g

d

g

셤 ò

ò

Op ò Dp ò

 $\delta$ 

9 9

8 8 6 Dp ò g g

8

o'

Gaps

2407

2467

2527 360

2587

10;

Gaps

109

79

169 134 229 194 289 254 349 409 374 469

314

529 494 589 554 649 614 709

434

```
decresaratrerecterecerserarisearratearerecaseerereaea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cecentricingenecensascecearcerenaiseenrecessesceasencas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCTCTGCCCAGCATGCACTCCATGAGCCAGGCTCCAGGCCTCAAGATCCTTTC
                                                                                                                                                                                       170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA
                                                                                                                                                                                                                    135 AAIGGGCTCAGGGGACTATGACTCCTCAGAAGGAACCCTGTTTCCGTGAAGAAATGCTAA
                                                                                                                                                                                                                                                                                         255 cariggaringgicarccregicaregerraceagaagaaacreagaagcargaegacaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 555 GGTCTATGTTGGCGTCTGGATCCCTGCCTCTGCTGACTATTCCCGACTTCATCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGACGTCAGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ccccaareacrrcreegreerrererrererresecacareareareerre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gecegacarcarcarcarcararracracarcarcarcarararranda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGCCACCAGAAGCGCCAAAGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGGAGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   caaccaacerercacriroacaacacrerecacacaacacricarriccarcaccaaceccr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCTTTCTTCCACTGTTGTCTGAACCCCCATCCTCTATGCTTTCCTTGGAGCCAAATTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20 decedecacada de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de constante de
                                                                                                                                        80 CAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACACGAGGA
                                                                                                                                                                                                                                                                 TTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         315 dracaddchdcachchdadhddcchdchchrindrahcachchrochronddc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTIGAIGCCAIGGCIGACIGGIACITIGGGAAAITITIGIGIAAGGCTGICCAIAICAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTACACTGTCAACCTCTACAGCGGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cracacagreaaccretacageagrerecrearecresecriteareagreregaceera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAAGGAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCT
                                  GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                             CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                        GTACCGGCTGCACTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                            GAGTGTTGCCATGGAACCGATCAGTGTGTATATACACTTCTGATAACTACTCTGAAGA
Indels
  301;
  Mismatches
  ;
0
  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAACG
  Matches 1391;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020
                                        20
                                                                                                              110
                                                                                                                                                                                                                                                                     230
                                                                                                                                                                                                                                                                                                            195
                                                                                                                                                                                                                                                                                                                                               290
                                                                                                                                                                                                                                                                                                                                                                                                                            350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                 g
                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                     \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                              à
                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGC 1140
                                                                                                                                                                                                                                                                                                                                                                                       2947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1021 ACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCC 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGACTTCGAGGCALTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3188 ACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCC 3247
                                                                           2707
                                                                                                                                                     2767
                                                                                                                                                                                                                    GGGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCC 2827
                                                                                                                                                                                                                                                                                            05-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                              840
    TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA 2647
                                                                                                                                                                                              099
                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                   TGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCG 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3366
                                                                 TGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                              TCATCCTCTCCTGTTACTGCATCATCTTCTAAGCTGTCACACTCCAAGGGCCCACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGACTTCGAGAGCATCGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3248 AGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGGATCCTTTCCAAAGGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unknown.
SM Unknown.
Unclassified.
Unclassified.
CE I (bases I to 1737)
JRS Lee, J. and Wood, W.I.
E Antibodies to human PF4A receptor and compositions thereof
E Antibodies to S776457-A 3 07-JUL-1998;
Location/Qualifiers
Location/Qualifiers
                                                                                                                  recadeccaccacagreaaggccaaggaaacrecrescreaaaaggcagreaargres
                                                                                                                                                                                                                                                                       AGGGGGACATCAGGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCC
                                                                                                                                                                                                GCGTCTGGATCCCCAGCCCTCCTCATATACCTGACTTCATCTTTGCCGACGTCAGCC
                                          <u> ACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTG</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 974.4; DB 6;
Pred. No. 5.7e-192;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AR015970
Sequence 3 from patent US 5776457.
AR015970
AR015970.1 GI:3972247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51.9%;
76.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3128
    2588
                                                                                                                                                                                                                                  2768
                                                                                                                                                                                                                                                                                                              2828
                                                                                                                                                                                                                                                                                                                                                                                            2888
                                                                                                                  541
                                                                                                                                                         2708
                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                            481
                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                         199
                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 14
AROLS970
LOCUS
DEFINITION
ACCESSION
VERSION
VERSION
CEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                       8 8
                                                                                                                                            8 6 8
                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                        ò
```

1009

769 719 829 779 889 839 949 899

629

1069 1019

us-09-367-052-1.rge

```
Op
                                                                ò
                                                                              셤
                                                                                                   ð
                                                                                                                                                                                                                                                            1488
                                                                                                                                                                                                                                                                                              1525
                                                                                                                                                                                                                                                                             1669
                                                                                                                                                                                                                                                                                                             TTTTCTGTAAAAGATGGCACTTAAAACCAAAGCCTGAAATGGTGGTAGAAATGCTGGGGT 1729
                                                                                                                                                                                                                                                                                                                                                1730 TITITITIGITIGITITITICAGITITICAAGAGIAGATIGACTICAGTOCOCTACAAAT 1789
                                                                                                                                                                                                                                                                                                                                                                                   1139
                                1249
                                                                  1309
                                                                                                    1369
                                                                                                                                     1429
                                                                                                                                                      1361
                                                                                                                                                                                                                                                                                                                        1191
                                                                               TTTTAAGTTACACATTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTATTGC 1251
                                                                                                             THGTTGGATTTTTGT-----CTTGTGTTTTCTTTAGTTTTTGTGAGTTTAATTGACTTA 1305
                                                                                                                                                                      AAGTICTIAGIAGCIGITIAICIGIGIGIAGGACIGIAGAACIGIAGAAGAAGAAACIGA 1489
                                                                                                                                                                                  ACATTCCAGAATGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCA 1549
                                                                                                                                                                                                                          1414 ACATTCCAGAGCGTGTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTTTATGCA 1473
                                                                                                                                                                                                                                           CAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTCTTCAAGTTTTCA
                                                                 TITIATGTIACACATTITCCAGATAIAAGAGACTGACCAGTCTTGTACAGTTTTTTTTT
                                                                                                                                     ATATAAATATTGTTTTTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCC
                                                                                                                                                      TTTATA----TAAATTTTTTTTTTTCATATTGATGTGTGTCTAGGCAGGACCTGTGGCC
                                                                                                                                                                                                                                                                             TITITAATIGACIGITGGGAGTITATGTTCCTCTAGTTTTTGTGAGGTTTGACTTAATIT
                                                                                                                                                                                                                                                           1474 TAGATAATCTCTCCA---------
                                                                                                                                                                                                                                                                                                                                                                                                                              ARABABABABABABABABABABABA 1877
                                                                                                                    1252
                                                                                                                                     1370
                                                                                                                                                      1306
                                                                                                                                                                                                         1490
                                                                                                                                                                                                                                            1550
                                                                                                                                                                                                                                                                             1610
                                                                                                                                                                                                                                                                                               1489
                                                                                                                                                                                                                                                                                                              1670
                                                                                                                                                                                                                                                                                                                                                                 1582
                                                                                                                                                                                                                                                                                                                                                                                   1790
                                                                                                                                                                                                                                                                                                                                                                                                                    1850
               1080
                               1190
                                                 1140
                                                                 1250
                                                                                  1192
                                                                                                    1310
                                                                                                                                                                        1430
                                                                                                                                                                                         1362
1130
8 B 8
                                                                             g
                                                                                             S 8
                                                                                                                               8 8 8 8 8
                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                    상
                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                         장염
                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

PAT 29-SEP-1999 linear DNA AR060748 1737 bp Sequence 3 from patent US 5840856. AR060748 AR060748.1 GI:5987198 . Unknown. RESULT 15
AR660748
LOCUS
DEFINITION
ACCESSION
VERSION
VERSION
KEYWORDS
SOURCE
ORGANISM source REFERENCE AUTHORS TITLE JOURNAL FEATURES

ORIGIN

1009 CGCCTTCTTCCACTGTTGCCTCAACCCCATCCTCTAGCCTTCCTCGGGGCCAAGTTCAA 1069 839 949 899 10; 649 709 769 719 829 779 889 109 169 134 229 194 289 254 349 314 409 374 469 434 529 494 589 554 614 659 4 720 GCCTGGTALTGTCALCCTGTCCTALTGCALTATCALCTCCAAGCTGTCACACTCCAA GGGCCACCAGAAGGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTTGC CTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCAT 135 PATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAAGCTAA 290 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCAAGGAGCATGACGACAA 255 CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAAGCATGACGAGAAA 315 GTACAGGCTGCACTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGC CTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTA CGACGTCAGCCAGGGGGACATCAGGGGGGATGACAGGTACATCTGTGACCGCCTTTA CCCCGATAGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCTCATCCT GCCCGGCATCGTCATCTTCTTACTGCATCATCATCTAAGCTGTCACACTCCAA CAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCT 80 cadcoditaccardoa----godoarcadiararacacricadaraacracaccdagda AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA 230 TITCAATAGGATCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGG 195 TITCAATAAAATCTICCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCATTGTGGG 410 AGTIGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTGTAAGGCTGTCCATATCAT 375 AGTIGATGCCGTGCCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCAT CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA 590 AGICTATGIGGGGGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTGC GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACGGCTGTAGAGC gegegegedanadececendadecercandrececentecentecentecenteredadane GAGIGITGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGC Gaps 136; Indels Length Score 974.4; DB 6; Pred. No. 5.7e-192; 0; Mismatches 301; Query Match 51.9%; Best Local Similarity 76.1%; Matches 1391; Conservative ( 470 435 530 495 650 780 1010 710 770 830 890 840 950 900 960 615 20 20 110 170 350 à 셤 9 8 g 20 0 2 2 2 2 2 D g g õ à ò

```
1430 AAGITCITAGIAGGIGITTATCIGIGIGIAGGACIGIAGAACIGIAGAAGAAACIGA 1489
                                                                                                                                                                                                                                                                                                 1490 ACATTCCAGAATGTGTGGTAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCA 1549
                                                                                                                                                                                                                                                                                                                                                                                                                             1730 TITITIGITIGITITICATITICAGAGITATICA AGAITAGACITAGACITAGAGAGAT 1789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1070 AAGCTCTGCCCAGCATGCACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTC 1129
1020 AACCTCTGCCCAGCACGCACTCACCTCTGAGCAGAGGTCCAGCCTCAAGATCCTCT 1079
                                          1189
                                                            1139
                                                                                                                            1309
                                                                                                                                                                                                               1370 ATATAAATATTGTTTTTTTTTTTTTTTTTTTTTTTTTAGGCGTCTAGGCAGGACCTGTGGCC 1429
                                                                                                                                                                                                                                                                            1362 AAGTICTTAGTIGCTGTATGTCTCGTGGTAGGACTGTAGAA-----AAGGGAACTGA 1413
                                                                                                                                                                                                                                                                                                                        1414 ACATTCCAGAGCGTGTAGTGAATCACGTAAAGCTAGAATGATCCCCAGCTGTTTATGCA 1473
                                                                                                                                                                                                                                                                                                                                                                                      CICCAGCIAACCCITAIGCAAAGACITAIAIAIAIAIAIAIAIAIAIAIAAAGAACIT 1249
                                                                                                   1310 TITTIPARTIGACTGITGGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACTTAATTT 1369
                                                                                                                                                                                  TTATA----TAAATTTTTTTTTTTTTTATATGATGTGTGTCTAGGCAGGACCTGTGGCC 1361
                                                                                                                                                                                                                                                                                                                                            1474 TAGATAATCTCTCCA----- 1488
                                                      1080 CAAAGGAAAGGGAGGAGGACATTCATCTGTTTCCACTGAGTCTGAGTCTTCAAGTTTTCA
                                                                                                                            TITIAIGIDACACAITITCCAGATATAAGAGACTGACCAGTCITGTACAGTTITITITIT
                                          1130 CAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGGTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAAAAAAAAAAAAAAAAAAAAAAAAAA 1877
                                                                                   1190
                                                                                                       1140 (
                                                                                                                                                                                                                                      1306
                                                                                                                                                                                                                                                                                                                                               1550
                                                                                                                                                                                                                                                                                                                                                                                                            1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1850
                                                                                                                             1250
                                                                                                                                                               <u>ک</u> ۾
                                                                                                                                                                                                             8 8 8
                                                                                                                                                                                                                                                                          면 & 면
                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                  8 6
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
8
  g 2
                                         8 8
                                                                                  ઠે
                                                                                                   g
                                                                                                                       ò
                                                                                                                                              ద
```

Search completed: May 17, 2004, 12:10:40 Job time : 7607.63 secs Н

```
May 17, 2004, 03:46:58 ; Search time 804.917 Seconds (without alignments) 9906.453 Million cell updates/sec
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                using sw model
                                                                                - nucleic search,
                                                                                                                                                                                                           Title:
Perfect score:
                                                                              OM nucleic
                                                                                                                        Run on:
```

3373863 segs, 2124099041 residues IDENTITY\_NUC Gapop 10.0 , Gapext 1.0 US-09-367-052-1 1877 Scoring table: Searched: Sequence:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

N Geneseq 29Jan04:\* .: geneseqn1980s:\* ?: geneseqn1990s:\* geneseqn2001bs:\* geneseqn2002s:\* geneseqn2003as:\* geneseqn2003bs:\* geneseqn2001as:\* geneseqn2003cs:\* geneseqn2000s:\* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

genesegn20048:

10:

SUMMARIES

Aav46370 Nucleic a Aaz27611 Mouse CXC Aag80521 Human mon Aag99007 Chemokine Aaq29906 New Diate
Aad12801 Human neu
Aai5467 Nucleorid
Abs53992 DNA encod
Abv78039 Hypoxia-r
Abx08774 Human cDN
Abz6886 Nucleorid
Abz6886 Nucleorid
Abz42642 Human CXC
Abz3348 Human GXC
Abz3348 Human GXC
Abz3348 Human GXC
Abz83750 Human CXC
Abz803750 Human CXC
Abs83750 DNA encod
Abb88803 Human cDN
Abs83750 DNA encod
Abs83803 Human CXC
Abz83756 BHuman CXC Description AAQ29506 AAD12801 AAI65467 ABS53992 ABZ35348 ADB47320 AAA61656 AAZ40014 ABS53750 ABK83803 ABV78039 ABX08779 ABX74454 ABZ68886 AAV46370 ADC98645 В Query Match Length 1679 Result No. 

10 Aa227610 Human CXC Aaa34774 Human ade	Aalsoss numan Aahsoss CXCR4 Absoss Human	Aca64841 3 Abs64793 8 Add67548	Adb58421 5 Adb53005 0 Ab235630	7 Aca56637 Human 3 Ab235563 Human 77 Aav18357 Human 6 Aaa91726 Human 6	Abk54255 Human 9 Aaq66179 Seven 3 Aaz38553 Human	38 Abq74938 Human CXC 52 Aah99952 CXCR4 enc 07 Acc72707 Human can 50 Aca64750 Chemokine
AAZ27610 AAA34774		ACA648 ABS647 ADD675	ADB584 ADB530 ABZ356	7 ACA5663 6 ABZ3556 2 AAV1835 3 AAA9172	ABK542 AAQ661 AAZ385	ABQ749 AAH999 ACC727 ACA647
889		161 582 747	200	1225 1224 1317 1317	317 317 059	
4. 4. 4 0. 00 0 0. 00 0		0 4 4 0 0 0 0		44 44 44 44 44 44 44 44 44 44 44 44 44	4 4 4 4 4 6 7 4	4. 4. 4. 4. 6. 6. 6. 6. 6. 1. 0. 0.
936.8	999	933.6 932.6 4.6	905.6 905.6 859	859 847 834.6 834.6	834.6 833 809.6	809.6 809.6 808 808
				9 9 9 9 9 9 9	39 440 11	4 4 4 4 9 6 4 5

## ALIGNMENTS

RESULT 1

Mouse; CXC chemokine receptor; pre-B cell line DW34; CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1; HIV infection; screening; inhibitor; AIDS; ds. Nucleic acid encoding a murine CXC chemokine receptor. AAV46370 standard; cDNA to mRNA; 1877 BP 20-NOV-1998 (first entry) AAV46370; AAV46370 

Location/Qualifiers 120. .1199 /\*tag= a Mus sp

WO9835035-A1 13-AUG-1998

97WO-JP000299. 97WO-JP000299 07-FEB-1997; 07-FEB-1997;

(SHIO ) SHIONOGI & CO LTD

Tachibana K, Iizasa H, Yoshida N; Nagasawa T, Yoshie O; WPI; 1998-447232/38. P-PSDB; AAW64778. Kishimoto T, Nakajima T,

Mouse CXC chemokine receptor binding to PBSF/SDF-1 pre-B cell stimulatory factor - is useful for screening of potential HIV infection and AIDS inhibitors.

Claim 3; Page 39-42; 76pp; Japanese.

The present sequence encodes a murine CXC chemokine receptor which binds to the mouse CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1. The nucleic acid is isolated from mouse pre-B cell line DW34. The receptor and cells expressing it can be used in the study and mapping of the

ო

```
1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
 420
                                                                480
                                                                                               629
                                                                                                                             540
                                                                                                                                                            719
                                                                                                                                                                                           900
                                                                                                                                                                                                                         779
                                                                                                                                                                                                                                                                                        839
                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                         899
                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                        959
                                                                                                                                                                                                                                                TGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021 CGGGGTGGACACTCTTCCGTCTCCACGAGTCAGAATCCTCCAGTTTTCACTCCTCCAGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1201 ACTGTTGGGAGTTTATGTTCCTCTAGTTTTGTGAGGTTTGACTTAATTTATAAATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1440 TAGCTGTTTATCTGTGTGTAGGACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTCCGAGGAGCACCCCACCCCCACCCCCCCCCCCCCTTTAAATTGTTTGGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATT
                                                                                                                                                              CAGGGGGACATCAGGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCCGATAGC
                                                                                                                                                                                 CAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGC
                                                                                                                                                                                                                             CTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATC
                                                                                                                                                                                                                                                                                          GTCATCCTCTCCTGCTGCATCATCATCTTAAGCTGTCACACTCCAAAGGGCCACCAG
                                                                                                                                                                                                                                                                                                                                                           TGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCCATCACAGAGGCCCTCGCCTTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACTGITGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGGCCAAGTTCAAAAGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACTGTTGCCTGAACCCCATCCTCTATGCCTTCGGGGCCAAGTTCAAAAGCTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCATGCACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961 cagcargeacrecaacrecargageagagerecagecreaagarecrrreaaggaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1320 ACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACTTAAATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGTTTTTTTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1261 İGİTİTİTĞİTIĞİTİÇETINGATGAĞÇĞIÇITAĞĞÇAĞĞĞÇÇĞTĞTĞĞÇÇAAĞTIÇITAĞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCATAATCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gecercinegarccanecercercanaracersactreaterrineceaecercae
                                                                                                                                                                                                                                                                                                                                                                                                                        CCCTTATGCAAAGACTTATATAATATATATATATATGATAAAGAACTTTTTTATGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCGTCTGGATCCCAGCCCTCCTCACTATACCTGACTTCATCTTTGCCGACGTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1560
                                                                                                    009
                                                                                                                                 481
                                                                                                                                                                 099
                                                                                                                                                                                                541
                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1381
                                                                    421
                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          상
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                   \delta
                                                           셤
                                                                                               ò
                                                                                                                        g
                                                                                                                                                            \dot{\varsigma}
                                                                                                                                                                                           g
                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                      рp
                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                 ें
                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                       This sequence encodes the mouse CXCR4 protein. The invention relates to remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockout mouse, it becomes possible to prepare remedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. It is also possible to establish methods for treatment with the use of these remedies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AIGGCIGACIGGIACITIGGGAAATITITGIGIAAAGCIGICCAIAICAICIACACIGIC 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACCTGTCAGTGGCTGACCTCCTCTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGAACCGATCAGTGTGTGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTTGGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Arcrrecreccaccarcracrrearcrretrigacrescaragressarissarre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGATCTTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                     solid cancer; therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 2; Length 1758;
                                                                                                                                                                                                                                                                                                                                                                            CXCR4-potentiating agents and methods useful for inhibiting necvascularization, and treating solid cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1758 BP; 447 A; 414 C; 369 G; 528 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                   CXCR4; mouse; neovascularisation; inhibitor; tissue repairing agent; vascularisation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93.7%; Score 1758; D
100.0%; Pred. No. 0;
ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure, Page 50-51, 63pp, Japanese.
                                                                                                                                                                                                                                                                                               Tachibana
                                                                                                                                                                                                                 98JP-00095448
        coding sequence
                                                                                                                                                                                                                                                (CHUS ) CHUGAI SEIYAKU KK.
(KISH/) KISHIMOTO T.
                                                                                                                                                                                                                                                                                               Nagasawa T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                              WPI; 1999-591042/50.
P-PSDB; AAY39994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                               Kishimoto T,
                                                                                                                                                                                                                   24-MAR-1998;
                                                                                                                     WO9948528-A1
      Mouse CXCR4
                                                                                                                                                    30-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Siπ
Matches 1758;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ٦
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                      Mus
```

g

상

8 8 8

g

à

셤

ò

 $\stackrel{>}{\circ}$ 

g

us-09-367-052-1.rng

289

254

169

79

Gaps

136;

134

229

194

349

314

409 374 469 434 529 494

```
GCCCGGCATCGTCATCCTCTGTATACTGCATCATCTGTAAGCTGTCACACTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780 GGGCCACCAGAAGGCGCTCAAGACCACAGTCATCTTCTTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTC
                                                                                                                                                                                                                                                                                                                                                                           GTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGITGAIGCCAIGGCIGACIGGTACITIGGGAAAITITIGIGTAAGGCIGICCAIAICAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u> Agrireareccareccaaacrecractrigeaaacriccrafecaaeecaaccarercar</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTACACACTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCCAAGGAAGCTGTTGGCTGAAAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTCTATGTGGGCGTCTGGATCCCAGCCTCCTCGACTATACCTGACTTCATCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sss genenandirasedrendanieeerdeereerdenskennieeesachieareniee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGACGTCAGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            --------reagreadardadadararararcrordadecrora
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGCCACCAGGAAGCGCCCTCAAGACGACAGTCATCCTCATCCTAAGCTTTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAGCAAGGATGTGACTTCGAGAGTTGTGCACAAGTGGATCTCCATCACAGAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAAGCAAGGGTGTGAGATTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAA
                                                                                                                                                                                                                                            CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTACACTGTCAACCTCTACAGCATTCTCATCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCCGATAGCCTGTGGATGGTGGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                               GTACCGGCTGCACTGTGGCTGACTCCTCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                 GCGCGCGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAAC
                                                                                                                                         GAGTGTTGCCATGGAACCGATCAGTGTGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                       AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA
                                                                    GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC
 1737
 Length
                                  Indels
Score 974.4; DB 2;
Pred. No. 2.9e-178;
0; Mismatches 301;
 Query Match
Best Local Similarity 76.1%;
Matches 1391; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              006
                                                                                                                                                                                                                                                                                                                          195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                530
                                                                                                                                           110
                                                                                                                                                                             80
                                                                                                                                                                                                               170
                                                                                                                                                                                                                                                 135
                                                                                                                                                                                                                                                                                      230
                                                                                                                                                                                                                                                                                                                                                            290
                                                                                                                                                                                                                                                                                                                                                                                              255
                                                                                                                                                                                                                                                                                                                                                                                                                                   350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    495
                                                                      20
                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                면 상 면
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
상
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6 B 6
                                                                      8 6
                                                                                                                                   8 6 6 6
                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                  g &
                                                                                                                                                                                                                                                                                                                                                                                                                             6 B 6
                                                                                                                                                            1799
                                                                                                                                                                                                                                1859
                                                                                                                                                                                                                                                                    1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 PF4AR members were identified by probing lambda libraries from human monoclyte-like cell line HL-60 and human peripheral blood lymphocytes using a large fragment of IL-8 receptor DNA (full sequence given in AAQ80520). The nucleotide sequences of the 2 PF4ARs are given in AAQ80521 and AAQ80522, and their respective amino acid sequences in AAR86812 and AAR88813. (Updated on 25-WAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Treatment of inflammatory disorders - by administering an antibody capable of binding a platelet factor 4 superfamily receptor polypeptide
                                        TGTTTGTTTTTTCAGTTTTTCAAGAGTAGATTTGACTTCAGTCCCTACAAATGTACAGTCTT
                      TGTTTGTTTTTTCAGTTTTCAAGAGTAGATTGACTTCAGTCCCTACAAATGTACAGTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Interleukin-8 receptor; IL-8 receptor; PF4AR; platelet factor superfamily receptor; monocyte, chemotactic; inflammation; inflammatory disease; arthritis; emphysema; cystic; fibrosis; colitis; bronchitis; meningitis; therapeutic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      U; 0 Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; 373 G; 499 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure, Page 54-56; 83pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
91. .1149
/*tag≈ a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              υÌ
                                                                                                                                                                                                                                                                                                                                                                                                                                   ВР
                                                                                                                                                                                                                                                                                                                                         AAAAAAAAAAAAAAA 1758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hebert
                                                                                                                                                                                                                                                                                                                                                                                                                                   AAQ80521 standard; cDNA; 1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94WO-US006380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93US-00076093
                                                                                                                                                                                                                                                                                                         AAAAAAAAAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human monocyte PF4AR cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chuntharapai A, Lee J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1737 BP; 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1995-036114/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR68812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-JUN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11-JUN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9428931-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-MAR-2003
18-JUL-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-DEC-1994
                                                   1501
                                                                                         1680
                                                                                                                           1561
                                                                                                                                                            1740
                                                                                                                                                                                                1621
                                                                                                                                                                                                                                    1800
                                                                                                                                                                                                                                                                      1681
                                                                                                                                                                                                                                                                                                         1860
                                                                                                                                                                                                                                                                                                                                           1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAQ80521;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ношо
                                                                                                                                                                                                                                                                                                                                                                                                RESULT 3
AAQ80521
LD AAQ80521
LD AAQ80521
LD AAQ80521
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1
LD 25-1

                                             a
                                                                                       8 8
                                                                                                                                                                                    영장
                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                       셤
                    à
                                                                                                                                                  ठ
                                                                                                                                                                                                                                                                                                     ò
```

554 649 614 709 629 719

889

```
1429
                                                                                                                                                                                                                            1489
                                                                                                                                                                                                                                                                                       1473
                                                                                                                                                                                                                                                                                                                             1488
                                                                                                                                                                                                                                                                                                                                                 1669
                                                                                                                                                                                                                                                                                                                                                                    1525
                                                                                                                                                                                                                                                                                                                                                                                       1729
                                                                                                                                                                                                                                                                                                                                                                                                                              1789
         1079
                                                                   1249
                                                                                     1191
                                                                                                                            1251
                                                                                                                                                1369
                                                                                                                                                                   1305
                                                                                                                                                                                                          1361
                                                                                                                                                                                                                                                1413
                                                                                                                                                                                                                                                                    ACATTCCAGAATGTGTGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCA 1549
                                                                                                                                                                                                                                                                                                          1609
                                                                                                                                                                                                                                                                                                                                                                                                          1526 ringchgiagaadanddchraraaccaaadccaaagiddr-aradaaardchd--- 1581
                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTTAAGTTACACATTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTTATTGC
                                                                                                                                                TITITAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACTTAATTT
                                                                                                                                                                                      1370 ATATAAATATTGTTTTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGGCC
                                                                                                                                                                                                                                                                                                           1550 TAATCTCTTCATTCCGAGGAGCACCCCACCCCCACCCCCACCCCCACCCCCATTCTTAAAT
                                                                                                                                                                                                                                                                                                                                                 -------riccccridaaccriririccridiraagaccridat
                                                                                                                                                                                                                                                                                                                                                                                       TITICIGIAAAAGAIGGCACITAAAACCAAAGCCIGAAAIGGIGGIAGAAAIGCIGGGGI
                                                                                                                                                                                                                                                                                                                                                                                                                              TIGITGGATTTTTGT----CTTGTGTTTCTTTAGTTTTTGTGAGTTTAATTGACTTA
                                                                                                                                                                                                   TTATA----TAAATTTTTTTTTTTCATATTGATGTGTGTGTGTGTAGGCAGGACTGTGGCC
                                                                                                                                                                                                                                         1414 ACATTCCAGAGCGTGTAGTGAGTCACGTAAAGCTAGAAATGATCCCCAGCTGTTTATGCA
AAGTICTIAGTAGCIGITIAICIGIGIAGGACTGIAGAACTGIAGAAGAAACTGA
                             CAAAGGAAAGCGGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCA
                                         crccadchaa-----cacadarghaaagacririririraracaraaarcririr
                                                                                                         1474 TAGATAATCTCTCCA-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1670
                                                                                                                                                                                                                                                                                                                                                                                                                               1730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1850
                                                                                                                                                1310
                                                                                                                                                                                                                              1430
                             1130
                                               1080
                                                                   1190
                                                                                      1140
                                                                                                         1250
                                                                                                                             1192
                                                                                                                                                                    1252
                                                                                                                                                                                                           1306
                                                                                                                                                                                                                                                                     1490
                                                                                                                                                                                                                                                                                                                                                                     1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                            ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                             a
                                                                                                                                                                                                   g
                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                      8
                        à
                                           ద
                                                                  2 4
                                                                                                  8
                                                                                                                      셤
                                                                                                                                          \dot{\delta}
                                                                                                                                                                                    ઠે
```

Antibodies directed against the interleukin-8 receptor B can be used to treat or prevent inflammation e.g. psoriasis, dermatitis, rheumatoid inflammation and particularly inflammatory bowel disease and chronic lung inflammation. When immobilised, these antibodies may be used to detect interleukin-8 receptor B to the from calls and tissues and for affinity purification of interleukin-8 receptor B from calls and tissues and for affinity additional chemokine superfamily receptor which was identified by probing lamda libraries of genomic DNA from a human monocyte-like cell line (L-60) and human peripheral blood lymphocytes using a large fragment of the interleukin-8 type A receptor DNA (see AAQ99006). (Updated on 25-MAR-2003 to correct PF field.)

Sequence 1737 BP; 454 A; 411 C; 373 G; 499 T; 0 U; 0 Other;

or

New antibodies against interleukin 8 type B receptor - used to treat prevent inflammation, also for detecting receptor expression and purificn.

Example 2; Col 47-50; 62pp; English

ñ Lee

Hebert C,

Ĕ,

Kim

WPI; 1995-283151/37. P-PSDB; AAR80757. Chuntharapai A,

Ä

HEBERT C. CHUNTHARAPAI / KIM K J. LEE J.

(CHUN/) (KIMK/) (LEEJ/)

94US-00202056 91US-00677211

25-FEB-1994; 39-MAR-1991;

US5440021-A

```
CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     195 TITCAAIAAAAICTICCTGCCCACCATCTACTCCATCATCTTAACTGGCATTGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAATGGATTGGTGATCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     315 GTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                 20 decedecedararea de cerada de compando de contra de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la c
                                                                                                                                                                                                                                                                                                                                                                                                                          110 GAGTGTTGCCATGGAACCGATCAGTGTGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            80 cagoggranccardda-----goggarcagrararacacrrcagaraacracaccgagda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTIGGGGTCTGGAGACTCCAACAAGGAACCCTGCTTCCGGGATGAAACGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 135 Aariedecricaededecrarieacriccardaadedaacccrierrriccerdaadaaaaariecraa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        410 AGTIGATGCCATGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
Score 974.4; DB 2; Length 1737; pred. No. 2.9e-178; 0; Mismatches 301; Indels 136;
     Query Match
Best Local Similarity 76.1%;
Matches 1391; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        470
                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           පු දු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                  ď
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Interleukin, IL-8; inflammation; psoriasis; dermatitis; rheumatoid arthritis; inflammatory bowel disease; chronic lung inflammation; treatment; antibody; affinity purification; detection; ss.
```

Chemokine superfamily receptor coding sequence

sapiens

Ношо

(revised)
(first entry)

25-MAR-2003 26-MAR-1996

AAQ99007

AAQ99007 standard; cDNA; 1737

349

314 409 374 469 434

169 134 229 194 289 254

79

ATGCATTCCTTGGAGCCAAATTTAA 1019

1020	1080	0.4111	11 192	OY 1310 TITTAATTGACIGTIGGGAGTTAATTGACTCCTAG  Db 1252 TIGTIGGATTTTTGTCTIGTGTTTCTTAGT  A13-0 are real and confirmation of confidentic and confidentic and confidentic and confidentic and confidentic and confidentic and confidentic and confidentic and confidentic and confidentic and confidentic and confidentic and confidentic and confidentic and confidentic and confidentic and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and confidential and		Qy 1430 AAGTTCTTAGTAGCTGTTTARCTGTGTAGCACTGT	Qy 1490 ACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGC 	Qy 1550 TAATCTCTACATCCGAGGAGCACCCCACCCCCACCC Db 1474 TAGATAATCTCTCCA	Qy 1610 TGTTTGGTTATGCTGTGATGGTTTGTTTGGTTTTTTTTTT	Qy 1670 TTTCTGTAAAAGATGGCACTTAAAACCAAAGCCTG/ 	1730	Oy 1790 GTACATCTTCTATTACATTGTAATAAAGTCAATG	Oy 1850 <u>Aaaaraaaaaaaaaaaaaaaa</u> a 1877 	RESULT 6 AAD12801 ID AAD12801 standard; DNA; 1679 BP.	XX AC AAD12801; XX DT 16-OCT-2001 (first entry)		XW fracture; extracellular signal regulated kina XW osteopenia; bone metastasis; neurotransmitter
XX SQ Sequence 1737 BP; 457 A; 412 C; 370 G; 498 T; 0 U; 0 Other; Query Match Best Local Similarity 75.9%; Pred. No. 2.4e-177; Matches 1388; Conservative 0; Mismatches 304; Indels 136; Gaps 10;	Qy 50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACGGCTGTAGAGC 109 20 GCGCGGCGCAAAGTGACGCCGAAGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAAC 79	Qy 110 GAGTGTTGCCATGGAACCGATCAGTGTATATACACTTCTGATACTACTGTGAAGA 169	Qy 170 AGTGGGGTCTGGAGACTATGACTCCCAACAAGGAACCTTGCGGGATGAAAAGGTCCA 229	OY 230 TITCAAIAGGAICTICCIGCCACCATCATTCATCATCTICTTGACTGGCAIAGICGG 289	Qy 290 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 349	350 GTACCGGCTGCACTGTCAGTGC	410 AGTTGATGCCATGGCTACTTTGGGAAATTTTGTGTAAGGCTGTCCATATGATGTTATGTGTAAGGCTGTCCATATGATGTTATGTGTAAGGCTGTCCATATGATGTTATGTGTAAGGCTGTCCATATGATGATGTTTTGTGTAAGGCTGTCCATATGATGATGTTATGATGATGTTATGATGATGATGATGTTATGATG		530 CCTCGCCATTGTCCACCACACAGTCAAAGGCCAAGGAAACTGCTGGCTG	S90 AGTCTATGTGGGCGTCTGGATCCCACCCTCCTCCTGGATCCTTTGC  S90 AGTCTATGTGGGCGTCTGGATCCCACCCTCCTCCTGACTATACCTGACTTCATCTTTGC		Qy         710         CCCCGATAGCCTGTGGATGGTGGTGGTTTCAATTCCAGCATATAATGGTGGGTCTCATCT         769           Ac         CCCCAATGATGGTTGTTCTTCAGTTTCAGCACATGGTTGGT	770 GCCGGALCGTCATCCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAA 82	QY 830 GGGCCACCAGAAGGCCCTCAAGACGACAGGCCATCCTCATCCTAGCTTTGC 889	OY 890 CIGCIGCCAIATTAIGIGGGATCAGCAICGACICCTICAICCTITIGGAGGICAI 949	OY 950 CAAGGAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGGCCCT 1009	OY 1010 CGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCGGGGCCAAGTTCAA 1069

CCCCACCCCATTCTTAAAT 1609 GAAATGGTGGTAGAAATGCTGGGGT 1729 TAGATTGACTTCAGTCCCTACAAAT 1789 ACCAGTCTTGTACAGTTTTTTTTT 1309 GAGCGTCTAGGCAGGACCTGTGGCC 1429 ||||||| |GTAGAA------AAGGGAACTGA 1413 SAGGCTCCAGCCTCAAGATCCTTTC 1129 GITTITGEAGGITTGACTTAATTT 1369 GTAGAACTGTAGAGGAAGAACTGA GCCGTGATCCTCAGCTGTTGCTGCA COCAGICACAAICCICCAGITITCA one mass; gene therapy; e; IP; Paget's disease; nase; ERK; osteoporosis; er; osteogenic;

1489

œ

us-09-367-052-1.rng

```
CTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTTTCCAAAGGAAAAGGGGGGGGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACTTATTATA----TAAATTTTTTTTTTCATATTGATGTGTCTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                criceccieridecteccriaciacarideaarcaecardeacticcricarccridea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITICACTCCAGCTAACACAGAIGTAAAAGACTITIT-----TITATACGATAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITITITITAATIGACIGIIGGAGIIITAIGIICCICIAGIITITIGIGAGGIITIGACI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAATTTATATAAATATTGTTTTTTTTTTTTTCATGTGAATGAGCGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1484 AACTGAACATTCCAGAATGTGTGAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                               CTTTGCCTGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTTAAAACTCTGGCCAGCACGCACTCACTCTGTGAGCAGAGGGTCCAGCCTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ccretechandenandendendententententententententendenendagenendag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTITITITIAAGITACACATITITICAGATATAAAAGACTGACCAATATTGTACAGITTT
                                                                                   AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCTCCTCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                       criricccaacs------rcagicascagaidacagararararcreficacce
                                                                                                                                                                                                                                                                                                                                        CCTTTACCCCGATAGCCTGTGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCT
                                                                                                                                                                                                                                                                                                                                                          CATCCTGCCCGGCATCGTCATCCTCTGCTGATCATCATCATCTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTTCAAAAGCTCTGCCCAGCATGCACTCCATGAGCAGAGGCTCCAGCCTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rarrecriciticaarrrrici-----cricitiritririkiriritricitaarr
CIGGGCAGITGAIGCCAIGGCIGACIGGIACTITGGGAAAITITIGIGIAAGGCICICCA
                       CTTTGCCGACGTCAGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCAAGGGCCACCAGAAGGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAACTTTTTATGTTACACATTTTCCAGATATAAAGAGACTGACCAGTCTTGTACAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1298
                                                                                                                                                                      487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1424
                                                                                                                                                                                                                                        547
                                                                                                                                                                                                                                                                                                                                                                                                            764
                                                                                                                                                                                                                                                                                                                                                                                                                                               712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1354
                                                                    464
                                                                                                 427
                                                                                                                                      524
                                                                                                                                                                                                       584
                                                                                                                                                                                                                                                                        644
                                                                                                                                                                                                                                                                                                       607
                                                                                                                                                                                                                                                                                                                                           704
                                                                                                                                                                                                                                                                                                                                                                            652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      944
   404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요 양 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                              $ A
                                                                                                                                                                                                                                                                                                  윱
                                                                                                                                                                                                                                                                                                                                8 8 8 8 6
                                                                                                                           B S
                                                                                                                                                                                                                                                                      à
                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention relates to a method for treatment or prevention of bone diseases characterised by loss of bone mass, comprises administering to a mammal a compound that lowers the level of neuropeptide Y (NPY) in the serum or cerebrospinal fillud (GSP) or a compound that lowers the level of inositol phosphate (IP) or extracellular signal-regulated kinase (ERK). The method is specifically used to treat (including by gene therapy) or prevent osteoporosis, osteopenia or Paget's disease, but may also be used e.g., in cases of fractures or bone metastases. These diseases may also be diagnosed by detecting elevated NPY levels, including monitoring of treatment, assessing efficacy of compounds in clinical trials and for identifying subjects at risk. The present sequence is a human NPY 33 receptor DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOTICGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            71
                                                                                                                                                                                                                                                                                                                                                                                                                               Treating or preventing reduced bone mass, e.g. osteoporosis, by reducing the level of neuropeptide Y activity in blood or cerebrospinal fluid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAAGAAGTGGGGGTCTGGAGTTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGTGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    recraaiticaaraaatcriccieceeceacearcracicearcarcriciraacreser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGICCAITICAAIAGGAICTICCIGCCCACCAICIACTICAICTICTICACTIGACTGGCAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 952.8; DB 4; Length 1679;
Pred. No. 4.1e-174;
0; Mismatches 252; Indels 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seguence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;
                                                                                                                         "Human neuropeptide Y (NPY) Y3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 7; Page 84-85; 102pp; English
                                                                    Location/Qualifiers
89. .1147
                                                                                                                                                                                                                                                                                          (BAYU ) BAYLOR COLLEGE MEDICINE (AMLI/) AMLING M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 80.2%;
Matches 1210; Conservative 0
                                                                                                                                                                                                                             22-JAN-2001; 2001WO-US002040.
                                                                                                                                                                                                                                                             20-JAN-2000; 2000US-00489872.
                                                                                                                                                                                                                                                                                                                                                 Ducy
                                                                                                         /*tag= a
/product= '
                                                                                                                                                                                                                                                                                                                                               Amling M, Karsenty G,
                                                                                                                                                                                                                                                                                                                                                                               2001-488709/53
                                                                                                                                                                                                                                                                                                                                                                                                  P-PSDB; AAE06690
         receptor;
                                       Homo sapiens
                                                                                                                                                                                          26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       224
                                                                      Key
```

g

8 S

8 8

8 6 8 6

ò

1063

943

891

823

711

771 883 831

643

606

306 403 366 463 523 486 583 546 643 909 703 651

426

g

ВЪ à

```
AGTCATCAAGCAAGGATGTGACTTCGAGGCATTGTGCACAAGTGGATCTCCATCACAGA 1003
CGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   832 CTTCGCCTGTTGGCTTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTTTCCAAAGGAAAAGCGGGGGGGCACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u> artrakakactrondecekadekerekerekererdadekadadegerekadeka</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGAGTCATCCTCGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTITGCCTGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1004 GGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cererecaaaaaaacaaaaraacarrearrearerrecaereaaareraaaarereaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAACTITITIAIGITACACAITITICCAGAIAIAAGAGACIGACCAGICTIGIACAGITIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTITITITIAAGITACACATITITCAGATATAAAAGACTGACCAATATIGTACAGTITI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          764 CATCCTGCCCGGCATCGTCATCCTCTGTTACTGCATCATCATCTTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       712 náricciecciedratrerchicciercereciarideariarearetecaaecrereae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1064 GITCAAAAGCICTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      trincacticcaectaacacagateraaagacirtri-----triatacgataaata
                                                                           187 IGCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCAT
                                                                                                                                                                                                                                                                             307 GGACAAGTACAAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                367 creseccacricareccerescaracrestacririsesaacriccrarecaasscacca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      427 igicililililidaecretacaecaecaecretearecreaecreteareaecreteaecre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             584 AAAGGCAGTCTATGTGGGGGTCTCGATCCCAGCCCTCCTCGTGACTTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTITIGCCGACGTCAGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     607 CTTTGCCAACG------TCAGTGAGGCAGATGACAGATATATCTGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTTTACCCCGATAGCCTGTGGTGGTGTTTCAATTCCAGCATATAATGGTGGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              652 CTTCTACCCCAATGACTTGTGGGTGGTTGTGTTTCAGCTTTCAGCACATGGTTGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CICCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTAGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      aarcarcaacaagggreeggreeggagaagacacagagagagagagagagarrecarcaga
                                                                                                                                               AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCATGACCATGAC
                                                                                                                                                                            247 TGTGGCCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAGAACTGAGAAGGATGAC
                                                                                                                                                                                                                                                GGACAAGTACCGGCTGCACCTGTCAGTGGCTTGACCTCCTTTGTCATCACACTCCCTT
                                                                                                                                                                                                                                                                                                                                              CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                            TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                 CGICCATTICAATAGGAICTICCTGCCCACCATCTACTICATCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1184
                                                                                                                                                                                                                                                                                                                                                 404
                                                                                                                                                                                                                                                                                                                                                                                                                                                 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 884
                                                    224
                                                                                                                                                       284
                                                                                                                                                                                                                                                     344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                666666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                 ò
                                                                                                   셤
                                                                                                                                                       à
                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
     Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72 GAGAACCAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The specification describes an antibody which is specific for an antigenic fragment of gp120. This antigenic fragment binds to DC-SIGN or is exposed upon gp120 binding of DC-SIGN due to concominant conformational change. DC-SIGN is a receptor that is specifically expressed on dendritic cells and facilitates infection of T lymphocytes with HIV. DC-SIGN is identical to a HIV-1 gp120-binding C-type lectin. DC-SIGN binds is expressed constitutively on T lymphocytes) with high affinity. The antibody of the invention inhibits the trans enhancement of HIV entry into a T cell or macrophage facilitated by dendritic cells. The antibody is useful to treat or prevent HIV infection. The present sequence represents a human polynucleotide, which is used in the course of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  An antibody for the treatment or prevention of HIV-infection comprises a gpl20 portion which binds to DC-SIGN or is exposed upon gpl20 binding of DC-SIGN due to concomitant conformational change.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12 degecadeadoradeaaagraacecedaddeecerdadreerecadradeacaceaere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human, receptor; DC-SIGN, dendritic cell; T lymphocyte; HIV; gpl20;
C-type lectin; ICAM3; HIV entry; T cell; macrophage; HIV infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match

50.8%; Score 952.8; DB 4; Length 1679;
Best Local Similarity 80.2%; Pred. No. 4.1e-174;
Matches 1210; Conservative 0; Mismatches 252; Indels 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Geijtenbeek T;
                                                                                                                                                                                                                                                                                                                                                                                                          Nucleotide sequence of a human polynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 126-127; 131pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Van Kooyk Y,
                                                                                                                                                                                                                                                          BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-MAR-2000; 2000US-00517605.
                                                                                                                                                                                                                                                          AAI65467 standard; DNA; 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-FEB-2001; 2001WO-US006322.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (UYNY ) UNIV NEW YORK STATE. (UYNI-) UNIV NIJMEGEN.
                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                   1544 GCTGCATA 1551
                                                                                                                                1466 TAŤĠĊĄŤA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Littman DR, Kwon D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-602565/68.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200164752-A2
                                                                                                                                                                                                                                                                                                                                                        10-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-SEP-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               164
                                 1406
                                                                                                                                                                                                                                                                                                            AAI65467;
                                                                                                                                                                                                         AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA AAIGA
```

1183

à g  $\delta$ 임 ò

1063 101 1123 1071

951

943 891

883 831

763

711

823

us-09-367-052-1.rng

```
sell-derived factor 1 alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
  c
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          $ B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      - <del>Q</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               쥠
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                  1353
                            1363
                                                                                                                                                                                                                                           1483
                                                                                                                                                                                                                                                                     AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT 1543
                                                                                                                                                                                                                                                                                                                                                                                 Inducing chemotaxis of endothelial cells, useful for regulating angiogenesis, e.g. for treating cancer, comprises treatment with stromal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 stronglation in the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property of the property o
                               TITITITITITIAATIGACTGTTGGGAGTTTATGTTCCCTCTAGTTTTTGTGAGGTTTGACT
                                                                                                                                                                                     1298 GACTTATTATA----TAAATTTTTTTTTTTTCATATTGATGTGTGTCTAGGCAGGACCT
                                                                                                                                                                                                                                        GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAGGACTGTAGAACTGTAGAAGA
                                                                            TATTGCTTGTTGGATTTTTGT-----CTTGTCTTTTTAGTTTTTGTGAAGTTTAATT
                                                                                                                                     TAATTTATATATATATTTTTTTTTTTTTTTCATGTGAATGAGCGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                receptor 4; CXCR4; chemotaxis induction; SDF1a;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA encoding human CXC chemokine receptor 4 (CXCR4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
89. .1147
/product = "CXCR4"
/product = "CXC chemokine receptor 4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABS53992 standard; cDNA; 1679 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0093596P.
99US-00358624.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-SEP-2001; 2001US-00953692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TATĠĊATA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1544 GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-697879/75.
P-PSDB; ABG32977.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US2002107195-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-JUL-1998;
21-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          38-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gupta SK;
                                                                               1244
                                                                                                                                     1364
                                                                                                                                                                                                                                                                                                                                                                                                       1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1466
                               1304
                                                                                                                                                                                                                                           1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABS53992;
                                                                                                                                                                                                                                                                                                                                                       1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABS 53992

ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 53992

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

AAC ABS 5392

A
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                       g
                                                                                                                                  ઠે
                                                                                                                                                                          ద
                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     쉱
                               ਨੇ
```

```
The invention describes a method of inducing chemotaxis of endothelial cells by treatment with stromal cell-derived factor lalpha (SDF1a). The method is used for stimulating EC chemotaxis, and thus angiogenesis, and is used for treating atherosclerosis, restenosis, ischaemic stroke and spinal cord injury. Inhibition of this process is useful in treatment and prevention of a very wide range of diseases, such as, infection (by bacteria, fungi, protozoa or viruses such as human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS)), pain, cancer and benign prostatic hypertrophy, diabetes, obesity, anorexia, bullmia, cathma, parkinson's disease, acute heart failure, hypotension, dypertension, urinary retention, cateoporosis, anginal pectoris, wocardial infarction, stroke, ulcers, benign prostatic hypertrophy, migraphrenia) and dyskinesias (e.g. Huntingdon's disease), inflammatory conjecase, atherosclerosis, restenosis, restenosis, restenosis, restenosis, restenosis, restenosis, restenosis, retinopathy, inflammatory bowel disease, atherosclerosis, restenosis, Alzheimer's disease, congestive charact failure, cardiac remodeling, angiogenic disease, congestive and Kaposi Sarcoma. This sequence encodes the human CXC chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  307 GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTT 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAGGCAGTCTATGTGGGGGGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGGGGCTCAAGTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTTGCCGACGTCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          72 gagaaccagcegiraccarcsa----geggarcagrafaracactrcagaraacca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         187 IGCTAATTICAATAAAATCTICCTGCCCACCATCTACTCCATCATCTTTAACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGAAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12 GCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   164 TGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTCCATTTCAAIAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        50.8%; Score 952.8; DB 6; Length 1679; 80.2%; Pred. No. 4.1e-174; tive 0; Mismatches 252; Indels 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;
Disclosure, Fig 1, 26pp, English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 80.2
Matches 1210; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTTGCCAACG---
```

Tue

```
1543
                                                                                                                                                                                                                                                                                                                                                              1243
                                                                                                                                                                                                                                                                                                                                                                                                          1303
                                                                                                                                                                                                                                                                                                                                                                                                                                 1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1465
                                                                                                                                                                                                                          1063
                                                                                                                                                                                                                                                                       1123
                                                                                                                                                                                                                                                                                                                   1183
                                                                                                                                                                                                                                                                                                                                        1131
                                                                                                                                                                               1003
                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                           1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GIGGCCAAGIICIIAGIAGCIGIIIAAICIGIGIAGGACIGIAGAACIGIAGAAGAAGA 1483
                                                                                                                                                                                                     951
                                          823
                                                               771
                                                                                      883
                                                                                                            831
                                                                                                                                    943
                                                                                                                                                        891
763
                    711
                                                                                                                                                                                                                                                                                                                                                                                                         AATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACGA
                                                                                                                                                                                                                                                                                                                                     CCTCTCCRAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTCTTCAAG
                                                                                                                                                                                                                                                                                                                                                                             TITICACTCCAGCTAACACAGAIGTAAAAGACTITIT------TITATACGATAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1244 TATTGCTTGTTGGATTTTTGT-----CTTGTGTTTTCTTTAGTTTTTGTGAAGTTTAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TATCCTGCTATTGTCATCCTGCTGCTGTTTGCATATCCTCCAGCTGTCACA
                                                                                                       CTCCAAGGGCCACCACAAGCCCTCAAGACCACACACTCATCTCTCATCGTGGCTTT
                                                                                                                                    cririoccrocrioccrararrarcrossoarcascarcoaccricarccrirrasso
                                                                                                                                               CTTCCCTGTTGCCTGCCTTACATAGGGATCAGCATCGACTCCTCGTGGA
                                                                                                                                                                               AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA
                                                                                                                                                                                                                          GGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA
                                                                                                                                                                                                                                       GGCCCTAGGCTTTCTTCCACTGTTGTCTGAACCCCCATCCTCTATGCTTTCCTTGGAGCCAA
                                                                                                                                                                                                                                                                        GIICAAAAGCICIGCCCAGCAIGCACICAACICCAIGAGCAGAGGCICCAGCCICAAGAI
                                                                                                                                                                                                                                                                                           1012 ATTTAAAACCTCTGCCCAGCACGCACTCACCTCTGTGAGCAGAGGCTCCAGCCTCAAGAT
                                                                                                                                                                                                                                                                                                                   CCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG
                                                                                                                                                                                                                                                                                                                                                              TITITITITITIAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAATTTATATAAATATTGTTTTTTTTTTTTTGTGAATGAGCGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gradeceaagricinaginecierargicieciegradaacieragaa-----aagge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AACTGAACATTCCAGAATGTGTGAATAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCTACCCCAATGACTTGTGTGTGGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCTT
                                                                                       CTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT
                                           CATOCTGCCCGGCATCGTCATCCTCTCTTACTGCATCATCATCTCTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TATGCATA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTGCATA 1551
                                                                                                                                                                                                                                                                       1064
                                                                                                                                                                                                                                                                                                                                         1072
                                                                                                                                                                                                                                                                                                                                                                                     1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1484
                                                                                                                                                                                                                                                                                                                                                              1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1466
                     652
                                                                712
                                                                                                                                                        832
                                                                                                                                                                                                      892
                                                                                                                                                                                                                           1004
                                                                                                                                                                                                                                                 952
                                                                                                                                                                                                                                                                                                                   1124
                                          764
                                                                                                            772
                                                                                                                                    884
                                                                                       824
                                                                                                                                                                                944
                                                            엄청
                                                                                                                                                                        දු පු
                                                                                                                                                                                                                       6 B 6
                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                            දු දු
                                                                                                                                                                                                                                                                                                                                                          $ 6 5 6 8
$ 6 5 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
 8 8
                                                                                                      8 8
                                                                                                                                                     g
                                     ò
```

The present invention relates to methods for identifying genes and proteins that are implicated in a specific disease or physiological condition. The method comprises comparing the transcriptome/proteome of a specialised cell type implicated in a disease or condition with that of second specialised cell type, under two experimental conditions, and identifying a gene that is differentially regulated in the two specialised cell types under experimental conditions. ANYTHER of and ABP65061-ABP65257 were identified using the methods of the invention. The coding sequences and proteins are useful for treating a disease in a patient, for manufacture of a medicament for treating a disease in a patient. For manufacture of a medicament for treating a disease in a patient and for regulating tumourigenesis, angiogenesis, apoptosis, biological response to hypoxia conditions, or hypoxia-associated pathology in a patient. The coding sequences and proteins are also useful for monitoring the therapeutic treatment of a disease or physiological condition, such as cancer, ischaemic conditions, reperfusion injury, retinopathy, neonatal stress, precelagmmia, atherosclerosis, inflammatory conditions, wound healing, inflammation, erythropolesis or hair loss 103 163 126 223 186 283 284 AGICGGCAATGGAITGGIGAICCTGGICATGGGITACCAGAAGAAGCTAAGGAGCAIGAC 343 71 Identifying a gene involved in disease for treating hypoxia-regulated conditions, comprises comparing the transcriptome/proteome of two cell types under different conditions and identifying a differentially antiinflammatory; vulnerary; gynecological; ophthalmological; vaccine; hypoxia; tumourigenesis; angiogenesis; apoptosis; cancer; ischeemic condition; reperfusion injury; retinopathy; neonatal stress; preeclapmaia; atherosclerosis; inflammatory condition; wound healing; inflammation; erythropoiesis; hair loss; human; gene; ds. 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 187 IGCIAATITCAATAAATCITCCIGCCCACCATCTACTCCATCATCTTAACTGGGAT 44 geaggrachaghageagracheacerreraageestragracheegracheegra 12 degecaceadradeaaadraaceceaagecereagracieearageaarecaerere 72 gagaaccagoggraaccardga-----ggggarcagrararacacricagaraactacac 164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 224 CGICCAITICAATAGGAICTICCIGCCCACCAICTACTICATCATCTICTIGACTGGCAT Gaps 46; Query Match

50.8%; Score 952.8; DB 6; Length 1679;

Best Local Similarity 80.2%; Pred. No. 4.1e-174;

Matches 1210; Conservative 0; Mismatches 252; Indels 46; Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other; Kingsman SM, Ward NR, Krige D, Claim 37; Page 378; 538pp; English (OXFO-) OXFORD BIOMEDICA UK LTD. 08-DEC-2000; 2000GB-00030076. 08-FEB-2001; 2001GB-00003156. 25-OCT-2001; 2001GB-00025666. 10-DEC-2001; 2001WO-GB005458. Mundy CR, WPI; 2002-627238/67 regulated gene WO200246465-A2 sapiens 13-JUN-2002 Rayner WN; þ White Homo ઠે 셤 엄 \$ 8 8 g ò ઠે

φ

Cytostatic; vasotropic; tranquiliser; antiatherosclerotic; gene therapy;

Hypoxia-regulated protein coding sequence #59

12-NOV-2002

DNA; 1679

standard;

ABV78039

ABV78039

RESULT 9
ABV78039
XX
AC ABV7
XX
DT 12-N
XX
XX
XX
KX
KW
CYCC

therapy; gene;

```
The present invention relates to methods and compositions for detecting an angiogenesis-associated transcript in a cell in a patient. The method involves contacting a biological sample from the patient with a polynucleotide that selectively hybridises to a sequence at least 80% identical to any of the angiogenesis-associated human polynucleotide sequences given in the specification. These angiogenesis-associated polynucleotide sequences comprise genes that exhibit changes in expression levels as a function of time in tissue undergoing angiogenesis. The method and the polynucleotide sequences of the invention are useful for diagnosing and treating angiogenesis and angiogenesis-associated diseases e.g. cancer. The polynucleotide sequences compared in the gene therapy of such disorders. The majogenesis-associated proteins encoded by the polynucleotide sequences are also useful in the gene therapy of such disorders. The majogenesis-associated proteins encoded by the polynucleotide sequences are useful as a vaccine for therapeutic and prophylactic immunisation. ABX08739-ABX0853 represent angiogenesis-associated polynucleotide
1298 GACTTATTTATA----TAAATTTTTTTTTTTCATATTGATGTGTGTGTTTAGGCAGGACCT 1353
                                                     GIGGCCAAGTTCTTAGTTGCTGTTATGTTCTCGTGGTAGGACTGTAGAA-----AAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cell for diagnosing
                                                                                                                 GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAGGAAGA
                                                                                              AACTGAACATTCCAGAATGTGTGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Detecting angiogenesis-associated transcript in a cell for diagnosing treating cancer by contacting a sample with a polynucleotide that exhibits changes in expression level as a function of time in tissue
                                                                                                                                                                                                                                                                                                                                                                                                         Human; angiogenesis-associated transcript; angiogenesis; angiogenesis-associated disease; cancer; cytostatic; gene
                                                                                                                                                                                                                                                                                                                                                                        Angiogenesis-associated human polynucleotide sequence #41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Aziz N;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 2; Page 217-218; 291pp; English
                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Watson SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-FEB-2001; 2001US-00784356.
22-FEB-2001; 2001US-00791390.
19-AFR-2001; 2001US-0285475P.
03-AUG-2001; 2001US-0310025P.
13-NOV-2001; 2001US-0350666P.
29-NOV-2001; 2001US-0354244P.
                                                                                                                                                                                                                                                                           ABX08779 standard; cDNA; 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BIOTECHNOLOGY INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002WO-US004915
                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                undergoing anglogenesis
                                                                                                                                                                                            1466 TATGCATA 1473
                                                                                                                                                              1544 GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Glynne R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2003-040681/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-040681,
P-PSDB; ABU03495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200279492-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-FEB-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (EOSB-) EOS
                                                                                                                                                                                                                                                                                                                                           21-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Murray R,
                                                               1354
                                                                                              1484
                                                                                                                             1406
                                                                                                                                                                                                                                                                                                            ABX08779;
                                1424
                                                                                                                                                                                                                                                              ABX08779
                                                                                                                                                                                                                                                                                           a
                                                                                                                      g
                                                                                                                                                            ઇ
                                                                                                                                                                                    엄
                                                                                         ò
                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1244 TATTGCTTGTTGGATTTTTGT-----CTTGTGTTTTCTTTAGTTTTTGTGAAGTTTAATT 1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA 1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA 1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTTAAAACCTCTGCCCAGCACGCACTCACCTCTGTGAGCAGAGGGTCCAGCCTCAAGAT 1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   951
                                                                                                                                                                                                                                                                                                            643
                                                                                                                                                                                                                                                                                                                                                                          703
                                                                                                                                                                                                                                                                                                                                                                                                                                         763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    criceccieridecrecerraciacarressaricascaricaaciecircarecressa 891
TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAGTGAGAAGCATGAC 306
                                                 403
                                                                               366
                                                                                                               463
                                                                                                                                              426
                                                                                                                                                                               523
                                                                                                                                                                                                            583
                                                                                                                                                                                                                                                                           546
                                                                                                                                                                                                                                                                                                                                           909
                                                                                                                                                                                                                                                                                                                                                                                                         651
                                                                                                                                                                                                                                                                 GGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1184 ACTITITITIAGTTACACATITITCAGATATAAAAGACTGACCAATATTGTACAGTTTT
                                                                                                                                                                                                                                                                                                          AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCGTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                          CTTTGCCGACGTCAGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                           CTTTGCCAACG------TCAGTGAGGCAGATGACAGATATATCTGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     criciaccccaaigacricigggiggiigiigiicagiircagiacacaicaiggiigi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATCCTGCCCGGCATCGTCATCCTCCTGTTACTGCATCATCATCTTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  crecaaggeccaccaggaaggggaaaggccrcaagagcaagagaggarccrcargggrrrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITTGCCTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATCATCAAGGAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              iriricacificaderakacacadardraaagaciririr-----riraracgaraaara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAACTTTTTTATGTTACACATTTTCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITITITITITITAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1364 TAATITATATAAATATIGITTTTTTGTTTTCATGTGAATGAGCGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                        AAAGGTGGTCTATGTTGGGGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTTTACCCCCGATAGCCTGTGGTGGTGTTTCCAATTCCAGCATATAATGGTGGGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGCATTATCATCTCCAAGCTGTCACA
                                                                    GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTT
                                                                                                                                            cresecastrearecestescaaacrestactrireseaacricerarecaasescaetea
                                                                                                                                                                                                                                             CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                               TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                 GGACAAGTACCGGGTGCACCTGTCAGTGGCTGACTCCTCTTTGTCATCACACTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      884
                                                                               307
                                                                                                                                              367
                                                                                                                                                                                                            427
                                                                                                                                                                                                                                             524
                                                                                                                                                                                                                                                                           487
                                                                                                                                                                                                                                                                                                            584
                                                                                                                                                                                                                                                                                                                                           547
                                                                                                                                                                                                                                                                                                                                                                            644
                                                                                                                                                                                                                                                                                                                                                                                                         607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       824
                                                 344
                                                                                                               404
                                                                                                                                                                               164
                                                                                                                                                                                                                                                                                                                                                                                                                                         704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                    8 8 8
                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                          8 6
                                                                                                                                                                                                                                                                                                                                                                                                                             6 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                          8 8 8
                                                                                                                                     8 8 8
```

and

Page

1183

1131

1011

1303

1363

1297

1423

1483

1465

```
New microarray, comprising a matrix of cDNA probe from a set of probes immobilized to a solid surface in predetermined order, useful in the
<u> artrakakacererecekackecekerekererererakackakakadererekacerekadar</u>
                                                                                                                                                                                                                                                  1184 ACTITITITAAGTTACACATITITICAGATATAAAAGACTGACCAATATIGTACAGTITIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAA-----AAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    aacridaacarriccadagcororadaarcacoraaadocragaarridarcocadororr
                                                                                                                                            CCTTTCCAAAGGAAAGCGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG
                                                                                                                                                                                cererecaaaggaaagegaggregacarrearererrecaereagrereagrerreag
                                                                                                                                                                                                                           TTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                            1244 TATTGCTTGTTGGATTTTTGT-----CTTGTGTTTTTTTAGTTTTTTGTGAGTTTAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1244 GAACTTTTTATGTTACACATTTTCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACTGAACATTCCAGAATGTGTGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT
                                                               GTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGGCTCCAGCCTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; microarray; solid surface; immobilised probe; CC-RCC; differential expression profile; aggressive CC-RCC tumour type; non-aggressive CC-RCC tumour type; Clear cell renal carcinoma; gene expression profiling; tumour tissue; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDNA sequence #26 up-regulated in CC-RCC patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Takashi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDNA; 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-MAR-2002; 2002WO-US009576.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-MAR-2001; 2001US-0279411P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BŢ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Teh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VAND-) VAN ANDEL INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1544 GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATGCATA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-040679/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABX74454 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rhodes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200279411-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-0CT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1466
                                                                 1064
                                                                                                      1012
                                                                                                                                              1124
                                                                                                                                                                                  1072
                                                                                                                                                                                                                           1184
                                                                                                                                                                                                                                                                 1132
                                                                                                                                                                                                                                                                                                                                                                                        1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABX74454;
                           952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Haab B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABX74454

ID ABX74454

XX ABX74

XX ABX74

XX BUMADD

XX HUMADD

XX HUMADD

XX HUMADD

XX HUMADD

XX HUMADD

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX HOMO

XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                   ð
                                                                                             임
                                                                                                                                 8 6
                                                                                                                                                                                                                    8 8 8
                                                                                                                                                                                                                                                                                                                                     음 중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA 1063
                                                                                                                             ý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATCAACCAAGGAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGA 951
                                                                                                                                                                                                                                                                                                                                                                                                                                                 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              103
                                                                                                                                                                                                                                              163
                                                                                                                                                                                                                                                                                    126
                                                                                                                                                                                                                                                                                                                            223
                                                                                                                                                                                                                                                                                                                                                                   186
                                                                                                                                                                                                                                                                                                                                                                                                           283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             771
                                                                                                                                                                                                     71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TATCCTCCTCCTGGTATTGTCATCCTGTCCTGTTGCATTATCATCTCCCAAGCTGTCACA
                                                                                                                                                                                                                                              104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                          TGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAA
                                                                                                                                                                                                                                                                                                                                                    recraarricarraaaarcrrccreccaccarcracraccarcarcrrcrraacreecar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTOGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           credecaerreareccerdecaaacregracrrreggaacrrecrarecaagecaereca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGCTATTCCCGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chridecaace - - - - - - - - - - - - - reachdadecadarcacadarahanarengreace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTTTACCCCCGATAGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                criciacccaarcacricidegiedriciacricacriticaciacacarcardioringeci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATCCTGCCCGGCATCGTCATCCTCTGTTACTGCATCATCATCTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCCAAGGGCCACAGAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCTTGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITIGCCIGCIGGCIGCCAIATTAIGTGGGGAICAGCAICGACTCCTICAICCITTIGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA
                                                                                                                                                                   GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGACGGCTG
                                                                                                                                                                                                       GCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACGCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGACAAGTACAGGCTGCACTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTTGCCGACGTCAGCGGGGGCATCAGTCAGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                                                                                                                                                           CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCAT
                                                                                                                             Gaps
                                                                                                                             46;
                                                                                     Length 1679;
                                              BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;
                                                                                                                             Indels
                                                                                  Score 952.8; DB 7;
Pred. No. 4.1e-174;
0; Mismatches 252;
                                                                                  50.8%;
ilarity 80.2%;
Conservative C
                                                                                     Query Match
Best Local Similarity
Matches 1210; Conserv
                                                Sequence 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 004
            sednences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              644
                                                                                                                                                                                                          12
                                                                                                                                                                                                                                                                                      72
                                                                                                                                                                                                                                                                                                                              164
                                                                                                                                                                                                                                                                                                                                                                     127
                                                                                                                                                                                                                                                                                                                                                                                                           224
                                                                                                                                                                                                                                                                                                                                                                                                                                                 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          704
        SXS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठ व ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
```

8 B 8 B 8

8 8 8

8

8 8 S

6 6 6 6 6

```
1184 ACTITITITABATIACACATITITICAGATATAAAAGACTGACCAATATIGTACAGTITI 1243
                                                                                                                                                                                                                                                                                                                                                        AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA 1003
                                                                                                                                             CTTCGCCTGTTGGCTGCCTTACTACATGGGATCAGCATCGACTCCATCATCCTGGA
                                                                                                                                                                                                                                                                                   GCCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                           CCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTCTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATTGCTTGTTGGATTTTTGT-----CTTGTGTTTCTTTAGTTTTTGTGAAGTTTAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GIGGCCAAGIICTIAGIAGCIGIITATCIGIGIAGACIGIAGAACTGIAGAGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAAA-----AAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1406 AACTGAACATTCCAGAGGGTGTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGGTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88
CTCCAAGGGCCACAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTT
                                                                                                                                                                                                                                                                                                                                     GTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGGCTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                        CCTTTCCAAAGGAAAGGGGGGGGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1298 GACTIATITATA----TAAATITITITITGITTCATATIGATGIGIGTCTGGGACGGACCT
                                                                                                                                                                                                                       <u>AATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACGA</u>
                                                                                                                                                                                                                                                                GOCCOTCGCCTTCCTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAACTITITIATGITACACATTITCCAGATATAAAGAGACTGACCAGTCTTGTACAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAATTTATATAAATATTTTTTTTTTTTTTTTCATGTGAATGAGCGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT
                                                     CTCCAAGGGCCACAGAAGCGCAAAGGCCCTCAAGACGACAGTCCTCATCCTAGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human, chemokine receptor, CXCR4; viral infection; surface protein, respiratory virus infection; respiratory syncytial virus infection; RSV infection; asthma, gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nucleotide sequence of human chemokine receptor CXCR4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABZ68886 standard; cDNA; 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1466 TATGCATA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1544 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1244
                                                                                                                                                                                                                                                                                                                                       1064
                                                                                                                                                                                                                                                                                                                                                                                                                                            1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABZ6886;
                                                                                       772
                                                                                                                                                          832
                                                                                                                                                                                            944
                                                                                                                                                                                                                               892
                                                                                                                                                                                                                                                                1004
                                                                                                                                                                                                                                                                                                    952
                                                                                                                                                                                                                                                                                                                                                                                                          1124
                      712
                                                       824
                                                                                                                          884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              & g
                                                                                                                                                   엄
                                                                                                                                                                                  8 S
                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                               음
상
음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    දු දු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                      성 음
                                                                              셤
                                                                                                                 \dot{\delta}
                                                                                                                                                                                                                                                             8
                                                                 The present invention relates to a microarray comprising a matrix of at least one cDNA probe from a set of probes immobilised to a solid surface in a predetermined order, where a row of pixels corresponds to replicates of one distinct probe from the set. The probes are complementary to nucleic acid sequences that are expressed differentially in aggressive as compared to non-aggressive types of clear cell renal carcinoma (CC-RCC) and that hybridise to the probes under high stringency conditions. The microarray is useful for the prognosis of patients with CC-RCC, wherein aggressive and non-aggressive CC-RCC tumour types are characterised by affremential expression profiles of genes that hybridise with one or more probes immobilised on the microarray. The arrays are useful for gene expression profiling of tumour and normal tissues. The present sequence represents a human cDNA sequence up-regulated in CC-RCC patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAGGGAGTCTATGTGGGCGTCTGGATCCCAGCCTCCTCGTGACTATACCTGACTTCAT 643
                                                                                                                                                                                                                                                                                                                                                                                                                             103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTTTAACTGGCAT 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTTTACCCCGATAGCCTGTGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCT 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGCATCATCATCTTAAGCTGTCACA 823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTOGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGAAGGAGCATGAC 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  credecadrigargeceredecaactecraticecaacriccrarecaagecageca 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTTGCCGACGTCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCGGCAGCAGGTAGCAAAGTGACGCCCAAGGGCCTGAGTGCTCCAGTAGCCACCCCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTGGCCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGACAAGTACCGGGTGCACTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            criciaccccaigacridiosgicardioriccagiricascarcardarderid
                                                                                                                                                                                                                                                                                                                                                                                                                             GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGACAAGTACAGGCTGCACTGTCAGTGGCCGACCTCTCTTTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                         46;
                                                                                                                                                                                                                                                                                                                                                    Score 952.8; DB 7; Length 1679; Pred. No. 4.1e-174; 0; Mismatches 252; Indels 46;
                                                                                                                                                                                                                                                                                                                      Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;
       carcinoma
   cell renal
                                       Page 132-133; 179pp; English.
       prognosis of patients with clear
                                                                                                                                                                                                                                                                                                                                                      Query Match 50.8%;
Best Local Similarity 80.2%;
Matches 1210; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTTGCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      127
                                                                                                                                                                                                                                                                                                                                                                                                                               44
                                                                                                                                                                                                                                                                                                                                                                                                                                                              12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                487
```

8 6 8 6

d  $\stackrel{\circ}{\partial}$ g 8 B 8

8 & 8

1483

1465

1183

1123

1063

```
CTTTGCCTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGG
                                                                                                                                                                                                                                                                                                                                                                   832 chrodochornogendeenhachhearnogdaheadearedacheeneeneea
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCCCTCGCCTTTCCACTGTTGCCTGAACCCCATCTTATGCCTTCCTCGGGGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1072 cererecaaaggaaagegaggregaerrearererreerereagrereaggrerreagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1132 TTTTCACTCCAGCTAACACAGATGTAAAAGACTTTTT-----TTTATACGATAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1364 TAATTTATATAAATATTGTTTTGTTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCT
                                                                                                                                             ------TCAGTGAGGCAGATGACAGATATATCTGTGACGG
                                                                                                                                                                                                                               CATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGCATCATCATCTTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                             crecaaggedaccaagaaggedaaggeerreaagaccacacacacrerearceregerrr
                                                                                                                                                                                                                                                                                                                                                                                              944 AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCCATCACAGA
                                                                                                                                                                                                                                                                                                                                                                                                            1012 ATTTAAAACCTCTGCCCAGCACGCACTCACCTCTGTGAGCAGAGGGTCCAGGCTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCTTTCCAAAGGAAAACGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1244 GAACTTTTTATGTTACACATTTTCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1244 TATTGCTTGTTGGATTTTTGT-----CTTGTGTTTTCTTTAGTTTTTGTGAAGTTTAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAAGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1484 AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1406 AACTGAACATTCCAGAGCGTGTAATCACGTAAAGCTAGAATGATCACCCAGCTGTT
              AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT
                                                                                   AAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGATTTTCCCGACTTCAT
                                                                                                                      CTTTGCCGACGTCAGCGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                                                           CCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCT
                                                                                                                                                                                                    criciacccangacricidesissinsisticasirios
                                                                                                                                                                                                                                                                                     CTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GIICAAAAGCICIGCCCAGCAIGCACICAACICCAIGAGCAGAGGCICCAGCCICAAGAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1304 TITITITITITAATIGACIGITGGGAGTITAIGTICCICTAGITTTIGIGAGGITTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1298 GACTITATTIATA----TAAATTITTTTTTTTTTCATATTGATGTGTGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TATGCATA 1473
                                                                                                                                                 CTTTGCCAACG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1466
                                        487
                                                                                                                         644
                                                                                                                                                 607
                                                                                                                                                                                                                                  764
                                                                                                                                                                                                                                                            712
                                                                                                                                                                                                                                                                                                                772
                                                                                                                                                                                                                                                                                                                                           884
                                                                                                                                                                                                                                                                                                                                                                                                                         892
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1424
                                                                     584
                                                                                             547
                                                                                                                                                                             704
                                                                                                                                                                                                       652
                                                                                                                                                                                                                                                                                      824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 8
                                                                                                                                                                                                                                                                                                                                                                                        9 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
               ઠે
                                  g
                                                                  Š
                                                                                   a
                                                                                                               8
                                                                                                                                             a
                                                                                                                                                                   දු පු
                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                               ठे
                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                          යි යි
                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        જે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        71
                                                                                                                                                                                                                                                                                        ಹ
                                                                                                                                                                                                                                                                                                                                                 The present sequence encodes human chemokine receptor CXCR4. The specification describes a method for modulating viral infection of a cell. the method comprises modulating a binding interaction between a cell chemokine-receptor and a surface protein of the virus. The proviso is that the cell chemokine-receptor is not CX3CR1 and that the virus is not HIV. The method is useful for treating or preventing respiratory virus infection in vertebrates, more particularly respiratory syncytial virus (RSV) infections, and related diseases, e.g. bronchiolitis, bronchitis,
                                                                                                                                                                                                                                                        Modulating viral infection of a cell, for treating or preventing respiratory virus infections, bronchitis, pneumonia or asthma, by modulating a binding interaction between a cell chemokine-receptor and surface protein of the virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CIGGGCAGITGAIGCCAIGGCIGACIGGIACITIGGGAAAITITIGIGIAAAGGCIGICCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGAACCAGGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGGTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           reregecaaregarregrearecregrearegerraceagaagaacreagaagaagargae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGACAAGTACCGGCTGCCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cresscastricarscostescaaacrestacriressaacriccrarscaasscastca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 7; Length 1679;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 50.8%; Score 952.8; DB 7; Best Local Similarity 80.2%; Pred. No. 4.1e-174; Matches 1210; Conservative 0; Mismatches 252;
                                                                                                                                                                                                                                                                                                                                Disclosure; Page 117-119; 120pp; English
                              "CXCR4"
                                                                                                                                       2001US-0311088P
                                                                                                            2002WO-CA001248
89. .1147
/*tag= a
/product=
                                                                                                                                                                (TOPI-) TOPIGEN PHARM
                                                                                                                                                                                           Zemzoumi K;
                                                                                                                                                                                                                     WPI; 2003-256541/25.
P-PSDB; ABP97733.
                                                        WO2003014153-A2
                                                                                                            12-AUG-2002;
                                                                                                                                       10-AUG-2001;
                                                                                  20-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      344
                                                                                                                                                                                           Renzi P,
  CDS
  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 B 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

1303

1243

1423 1353

-----AAGGG

1243

1131

1183

1071

1063 1011

1003

Seguence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

```
G protein-coupled receptor; GPCR; antigenic peptide; gene therapy; g protein-coupled receptor modulator; antibody; immune-related disease; growth-related disease; cell resperation-related disease; antoinmunological-related cell prollferative disease; autoimmune disease; Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy; esteoportosis; cardiomyopathy; inflammation; Crohn's disease; diabetes; graft versus host disease; Parkinson's disease; multiple sclerosis; pain; psoriasis; anxiety; depression; schizophrenia; dementia; memory loss; hypertension; hypotension; renal disorder; rheumatoid arthritis; trauma; ulcer; gene; ds.
                                                                                                                                                                                                                                                   Human CXC chemokine receptor 4 nucleotide SEQ ID NO:75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (LIFE-) LIFESPAN BIOSCIENCES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Brown JP;
                                                                 ABZ42642 standard; DNA; 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-DEC-2001; 2001WO-US050107.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-DEC-2000; 2000US-0257144P.
                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Burmer GC, Roush CL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-046718/04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P-PSDB; ABP81796.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200261087-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                        04-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-AUG-2002
                                                                                                                             ABZ42642;
RESULT 13
AB242642
AX
AX
AX
AX
AB242
AX
AX
AX
AB242
AX
AX
AB242
AX
AX
AB242
AX
AX
AB242
AX
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AX
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
AB242
AZ
```

New isolated antigenic peptides e.g., for G protein-coupled receptors (GPCR), useful for diagnosing and designing drugs for treating conditions in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or diseases. autoimmune

Disclosure; Fig 1; 523pp; English.

The present invention describes antigenic peptides (I) comprising: (a) any one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino caids. Also described: (1) an assay for the detection of a particular G protein-coupled receptor (GPCR) or a candidate polypeptide in a sample; and (2) an isolated antibody having high specificity and high affinity or avidity for a particular GPCR. (I) can be used as GPCR modulators and in gene therapy. The antigenic peptides for GPCRs are useful in detecting an antibody against a particular GPCR. and in the production of specific antibodies. The peptides and antibodies are also useful for detecting the presence or absence of corresponding GPCRs. The antigenic peptides for carefuled and antibodies are useful for diagnosing and designing drugs for treating immune-related disease, immunological-related cell proliferative comparation-related disease, immunological-related cell proliferative diseases, or autoimmune diseases, agrowth-related disease, contextributis, osteopromis, and one or viral infections, atherosclerosis, bacterial, fungal, protozoan or viral infections, atherosclerosis, bacterial, fungal, protozoan or viral infections, conscentivities, osteopromise, cancer, cardiomyopathy, chronic and cutte inflammation, allergies, coher cardiomyopathy, chronic and cutte circlammation's disease, multiple sclerosis, pain, psoriasis, conscentivities, trauma, ulcers, or anxiety, depression, schizophrenia, dementia, mental retardation, memory comparty, nausea, hypertension, hypotension, renal disorders, rheumatoid arthritis, trauma, ulcers, or any other disorders in which GPCRs are involved. The antibodies may be used in immunoassays and immunodiagnosis, obesity, mauses, hypertension, the present invention

```
1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GOCCTTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA 1063
                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           831
                                                                                                                                                                                                                                                                                                                                                                                                                                                             486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    771
                                                                                                                                                                                                                283
                                                                                                                                                                                                                                           246
                                                                                                                                                                                                                                                                     343
                                                                                                                                                                                                                                                                                               306
                                                                                                                                                                                                                                                                                                                         403
                                                                                                                                                                                                                                                                                                                                                   366
                                                                                                                                                                                                                                                                                                                                                                               463
                                                                                                                                                                                                                                                                                                                                                                                                                                   523
                                                  103
                                                                                                      163
                                                                                                                                126
                                                                                                                                                            223
                                                                                                                                                                                    186
                                                                                                                                                                                                                                                                                                                                                                                                       crescentrarecersecarácistraciriosarcirectarecarácisado 426
                                                                           71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCCCTAGCTTCCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                criceccieriescrescriacracarressarcaccarceacricerreares
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTTGCCGACGTCAGCCAGGGGGACATCAGTCAGGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCCTGCCCGGCATCGTCATCCTCTGTTACTGCATCATCATCTTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATCCTGCCTGGTATTGTCATCCTGTCTGCTATTGCATTATCATCTCCAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCCAAGGGCCACCAGAAGCGCAAAGGCCTCAAGAACACAGTCATCCTCATCCTGGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTTGCCTGCTGCCTATATTATGTGGGGATCAGCATCGACTCCTTCATCGTTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGA
                                                                                                                                                                                                                                                                                              247 reresecharesarresrearceresrearescriaesarraceasabaharresasabee
                                                                                                                                                                                                                                                                                                                                           rercarchacacarcaaccrcracacacacacacarcarccreeccrratarcacacarcaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGCTACCTGGCCATCGTCCACGCCACCAACAGTCAAAGGCCAAGGAAGCTGTTGGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTTGCCAACG------TCAGTGAGGCAGATGACAGATATATCTGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTTTACCCCGATAGCCTGTGGTGGTGTTTCAATTCCAGCATATAATGGTGGTCT
                                                                                                                      187 recraarirdaaraarcriccreccaccarcracrecarcarcarcricaraacreecar
                                                                                                                                                                                                                                                                     284 AGICGGCAAIGGAIIGGIGAICCIGGICAIGGGIIACCAGAAGAAGAAGCIAAGGAGCAIGAC
                                                                                                                                                                                                                                                                                                                                                                               CTGGGCAGTTGATGCCTGGTACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGGCAGTCTATGTGGGGGGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT
                                                  44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                              12 ececcaecadadanacanadadeceanadadecercanadadeciócadanacanada
                                                                                                        104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                            164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                           GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                    TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
 Length 1679;
 DB 7;
             Pred. No. 4.1e-174;
0; Mismatches 252;
Score 952.8;
Pred. No. 4.1
 50.8%;
 Query Match
Best Local Similarity 80.2
Matches 1210; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             952
                                                                                                                                                                                                                   224
                                                                                                                                                                                                                                                                                                                                                      307
                                                                                                                                                                                                                                                                                                                                                                                                          367
                                                                                                                                                                                                                                                                                                                                                                                                                                      464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   832
                                                                                                                                                                                                                                                                                                                              344
                                                                                                                                                                                                                                                                                                                                                                                  404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                   요 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                         ò
                                                                                                                                  Д
                                                                                                                                                                                   g
                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                        à
                                                                                                                                                             ò
```

```
WPI; 2003-757037/71.
  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1465
                                                       1071
                                                                                              1183
                                                                                                                                    1131
                                                                                                                                                                         1243
                                                                                                                                                                                                                1183
                                                                                                                                                                                                                                                   1303
                                                                                                                                                                                                                                                                                          1243
                                                                                                                                                                                                                                                                                                                                  1363
                                                                                                                                                                                                                                                                                                                                                                       1297
                                                                                                                                                                                                                                                                                                                                                                                                              1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1484 AACTGAACATTCCAGAATGTGTGGTAAATTTGAATAAAGCTAGCCGTGATCCTCAGCTGTT 1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAGGACTGTAGAACTGTAGAGGAAGA 1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human, CXC chemokine receptor 4, CXCR4; CXCR4 inhibitor;
small cell lung cancer, SCLC; cellular adhesion; cellular proliferation;
metastasis; motility; morphological change; drug screening; monitoring;
cytostatic; gene; ss.
                                                                                                                     CCTCTCCAAAAGGAAAACGAAGAGAGACATTCATCTGTTTCCACTGAGTCTGAGTCTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1298 GACTTATTTATA----TAAATTTTTTTTTTCATATTGATGTGTGTGTGTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACTGAACATTCCAGAGGGGGTGTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTT
                    GITCAAAAGCICTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGAT
                                                                                                                                                                         1244 GAACTTTTTATGTTACACATTTTCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT
                                                                                                                                                                                                                                                                                                                                  THTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACT
                                                                                                                                                                                                                                                                                                                                                                       1244 TATTGCTTGTTGGATTTTTGT-----CTTGTGTTTTCTTTAGTTTTTGTGAAGTTTAATT
                                                       <u> Artrada actronoco de de concreto de respectado de la concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de concesaço de co</u>
                                                                                              CCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG
                                                                                                                                                                                                              Trircacriccagcraacacacacacacacacacacacririr-----rrraraccaraaara
                                                                                                                                                                                                                                                                                        1184 ACTITITITIAAGITACACATITITICAGATATAAAAGACTGACCAATATIGTACAGITIT
                                                                                                                                                                                                                                                                                                                                                                                                              TAATTTATATAAATATTGTTTTTTGTTTTCATGTGAAATGAGCGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Juman CXC chemokine receptor 4 (CXCR4)-encoding cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /product= "Human CXCR4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
89. .1147
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (DAND ) DANA FARBER CANCER INST (NOVS ) NOVARTIS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADC98645 standard; cDNA; 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-MAR-2003; 2003WO-EP002916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-MAR-2002; 2002US-0366370P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1544 GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1466 TATGCATA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MO2003079020-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JAN-2004
                                                                                                                                                                           1184
                                                                                                                                                                                                              1132
                                                         1012
                                                                                              1124
                                                                                                                                    1072
                                                                                                                                                                                                                                                                                                                                  1304
                                                                                                                                                                                                                                                                                                                                                                                                              1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADC98645;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Salgia R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo
                                               셤
                                                                                          ò
                                                                                                                       D
                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20 00
                                                                                                                                                                 ò
                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                          à
```

```
The invention relates to methods and compositions for inhibiting small cell lung cancer (SCLC) proliferation and metastasis through modulation of the activity or expression of CXC chemokine receptor 4 (CXCR4), and optionally, that of the tyrosine kinase receptor c-Kit. Administration of a CXCR4 inhibitor modulates cellular adhesion and inhibits cellular proliferation, motility, and morphological changes in an SCLC cell coll population. The invention also disoloses methods on the finding that CXCR4 is ubiquitously expressed, and c-Kit is variably expressed, in SCLC cells. The invention also disoloses methods of screening for CXCR4 inhibitors; can enable to CXCR4 inhibitor therapy; determining whether a sample of lung cancer cells expresses CXCR4 and is therefore amenable to CXCR4 inhibitor and a c-Kit inhibitor; and a method of assessing whether CXCR4 inhibitor and a c-Kit inhibitor; and a method of assessing whether CXCR4 inhibitor and a c-Kit inhibitor; candination therapy should be continued, by determining CXCR4 (and optionally c-Kit) activity in two or more tumour samples taken from an SCLC patient during the course of treatment. The methods of the invention are useful for treating SCLC, for screening for agents for the treatment of SCLC, for determining whether a SCLC from individual patients is suitable for treatment with agents of the invention and substances continued and should be continued. The presents coping the invention and solution, and be used in methods of the invention.
                                                        Use of a CXC chemokine receptor 4 (CXCR4) inhibitor, for modulating cellular adhesion or inhibiting proliferation, movement, or morphological change in a small cell lung cancer (SCLC) cell population, or for treating a subject having SCLC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGCCAGCAGGTAGCAAAGTGACGCCCGAGGGCCTGAGTGCTCCAGTAGCCACCACATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          224 CGICCATTICAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                247 IGIGGGCAAIGGAIIGGICAICCIGGICAIGGIIIACCAGAAGAACIGAGAAGCAIGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            72 gagaaccaccecrraccarsca----GGGGArcacrararacacricaGAracracac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          127 ceaecaaarcecricadeceacirarcacriccarcaaecaaccricririccercaacaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 187 recraarircaaraaarcriccreccaccarcracrecarcarcarcricarrararacre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGACAAGTACCGGCTGCACCTGAGTGGCTGACCTCCTTTGTCATCACACTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            367 crasscaerrearscerescaaacrasracriressaacricerarscaassecere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TATCATCTACACCTCTACAGCAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1679;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ouery Match 50.8%; Score 952.8; DB 9; Best Local Similarity 80.2%; Pred. No. 4.1e-174; Matches 1210; Conservative 0; Mismatches 252;
                                                                                                                                                                                                                                               Disclosure; SEQ ID NO 1; 78pp; English
P-PSDB; ADC98646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 524
```

BP.

ABZ35348 standard; cDNA; 1711

```
AACTGAACATTCCAGAGCGTGTACTGAATCACGTAAAGCTAGAAATGATCCCCAGGTGTT 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Greeceaagricinaginecrenarereregraegacieracaa.-----aage 1405
                                                                                                                                                                                                                                                                                                                                                                                      1003
                                                                                                                                                                                                                                                                                                                                                                                                                                               1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  riticaciccasciaacacaarsiaaaascirriri-----ritaaassaraaaa 1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITITITITITAATIGACIGITGGGAGITTATGITCCTCTAGITITIGIGAGGITIGACT 1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACTTATTATA----TAAATTTTTTTTTTCATATTGATGTGTGTTTAGGCAGGACCT 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGACTGTAGAACTGTAGAGGAAGA 1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT 1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1184 ACTITITITIAAGITACACATITITICAGATATAAAAGACIGACCAATATIGIACAGITIT 1243
                546
                                                                                                                                                                                                                823
                                                                                                                                                                                                                                            771
                                                                                                                                                                                                                                                                         883
                                                                                                                                                                                                                                                                                                    831
                                                                                                                                                                                                                                                                                                                                 943
                                                                                                                                                                                                                                                                                                                                                            891
                                                                                                                                                                                                                                                                                                                                                                                                                   951
                                          643
                                                                       909
                                                                                                 703
                                                                                                                            651
                                                                                                                                                         763
                                                                                                                                                                                   711
                                                                                                                                                                                                                                                                                                                                                                                                               ATICATCAAGGAAGGGTGTGTGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Geccenacettretreactions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cercrecaaaggaaaggagargaarrearcrerricaerreaagarcreagg
COGCTACCTGGCCATCGTCCACGACCACGACGACGAGGGCCAAGGAAGCTGTTGGCTGA
                                                                                                                                                                                                                                                                                                                                 CTTTGCCTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGG
                                                                                                                                                                                                                                                                                                                                                            criceccreridecrecerraciacarresearcaetacarceacrecricarecrecidea
                                                                                                                                                                                                                                                                                                                                                                                                                                                1004 GGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1012 ATTTAAAACCTCTGCCCAGCACGCACTCACCTCTGTGAGCAGAGGGTCCAGCCTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1244 GAACTTTTTTATGTTACACATTTTCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TATTGCTTGTTGGATTTTTGT-----CTTGTGTTTTCTTTAGTTTTTGTGAAGTTTAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTTGCCGACGTCAGCCAGGGGGACATCAGTCAGGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                           cricráceceaatgacrigiggerégingregirecagiricagearargangeregeer
                                                                                                                                                                                                                CATCCTGCCCGGCATCGTCATCCTCCTGTTACTGCATCATCATCTTAAGCTGTCACA
                                                                                                                                                                                                                                            rarcciecorderaricatericatecieneciariocatrarcatericaaecieneae
                                                                                                                                                                                                                                                                         CTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT
                                                                                                                                                                                                                                                                                                   crecaaggecacagaaggecaaggecercaagaccacagacarcarcergecrr
                                                                                                                                                                                                                                                                                                                                                                                         <u> AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA</u>
                                            AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                           CCTTTACCCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1544 GCTGCATA 1551
                                                                                                                                CTTTGCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TATGCATA
                                                                                                                                                                                                                                                                                                                                                            832
                                                                                                                                                                                                                                                                                                                                                                                                                   892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1466
                                                                                                                              607
                                                                                                                                                                                                                                             712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1424
                                                                      547
                                                                                                    644
                                                                                                                                                           704
                                                                                                                                                                                     652
                                                                                                                                                                                                                  764
                                                                                                                                                                                                                                                                         824
                                                                                                                                                                                                                                                                                                      772
                                                                                                                                                                                                                                                                                                                                 884
                                                                                                                                                                                                                                                                                                                                                                                         944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1304
                487
                                            584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    D
                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               상
임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                      g
                                                                                                                                                                                  d
                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                        ò
                                          à
                                                                                                 ò
                                                                                                                         ద
                                                                                                                                                           ò
                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                         ò
```

```
The invention relates to a gene expression profile comprising one or more genes (AB234889-AB23692) and generated from a cell type. The cell type is a coronary artery endothelium, umbilical artery or vein endothelium, cortic endothelium, dermal microvascular endothelium, pulmonary artery or pothelium, ronchial epithelium, mammary epithelium, prostate epithelium, renal cortical epithelium, renal proximal tubule epithelium, myometrium microvascular endothelium, prostate epithelium, renal epithelium, renal proximal tubule epithelium, small airway epithelium, renal epithelium, umbilical artery smooth muscle, carrell progenitor cells, skeletal muscle, astrocytes, actic smooth muscle, meaangial cells, coronary artery smooth muscle, dermal fibroblast, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery artery smooth muscle, coronary artery smooth muscle, coronary artery artery smooth muscle, coronary artery smooth muscle, coronary artery artery artery artery artery artery artery artery artery artery artery artery artery 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    47 ecescasciascias de caracterca a de contra de contracter de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contracte de contract
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGTATATACACTTCTGATAACTACTC 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; artery; endothelium; umbilical; vein; aorta; pulmonary artery;
bronchial epithelium; prostate; muscle; lung fibroblast; osteoblast;
tumour; microarray; genome mapping; antibiotic; antiviral; antifungal;
gene expression; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New gene expression profile generated from primary, endothelial, epithelial, and muscle cell types, useful for identifying disease pathologies involving alterations of gene expression, e.g. cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1711;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1711 BP; 423 A; 407 C; 373 G; 507 T; 0 U; 1 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 952.8; DB 6; Length 1 Pred. No. 4.2e-174; 0; Mismatches 252; Indels
                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                       П
                                                                                                                                                                                                                                                                                                                                                                                 Human gene expression profile polynucleotide SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ORTH ) ORTHO CLINICAL DIAGNOSTICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 609; 850pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-MAR-2002; 2002WO-US008456.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-MAR-2001; 2001US-0276947P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            50.8%;
                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2002-740862/80.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antifungal agents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wang Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200274979-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                         05-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Sim
Matches 1210;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             44
                                                                                                                                                                       ABZ35348;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wan J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ношо
ABZ35348

ABZ35348

XXX XX

XXX ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3

ABZ3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ठ
```

9

15

RESULT

07 GAGAACCAGCGGTTACCATGGA0930AITCACATATATATACCAGGATGAAAAAAAAAAAAAAAAA
-----------------------------------------------------------------------

GAACTITITIAGGTTACACATITICCAGATATAAGAGACTGACCAGTCTTGTACAGTITT 1303 	TITITITITIAATIGACTGTTGGGAGTTTATGTTCTCTCTAGTTTTTGTGAGGTTTGACT 1363 	TAATITATATAAATATIGITITIGITIGITICAUGIGAATGAGCGICIAGGCAGGACCT 1423 	GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAGGAAGA 1483 	AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT 1543 	GCTGCATA 1551 
1244	1304	1364	1424	1484	1544
දුරු පු	ò q	oy Op	\$ A	දු පු	op o

Search completed: May 17, 2004, 06:37:02 Job time: 823.917 secs

us-09-367-052-1.rni

```
May 17, 2004, 05:52:09 ; Search time 150.281 Seconds (without alignments) 6931.281 Million cell updates/sec
                                                                                                                                                                                                                    1365418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Issued Patents NA:*
1: /cgn2_6/ptodata/2/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/2/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/2/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/2/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                          682709 seqs, 277475446 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                      OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                        IDENTITY NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                    Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database :
                                                                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                  Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result		* Query	;	1	SUMMARIES	
No.	Score	Match	Length	e :	QI	Description
-	974.4		1737	7	-08-202-05	
C)	974.4	ä	1737	-	-08-076-09	'n
m	974.4	51.9	1737	Н	-08-701-26	equence 3,
4	974.4	ä	1737	N	-08-284-58	m
ហ	974.4	۲,	1737	N	-47	'n
ø	974.4	Η.	1737	N	-08-802-627A	'n
7	974.4	51.9	1737	~	-08-801-238-	m
ω	974.4	ä	1737	N	-801-22	m
σ	974.4	Η.	1737	m	US-09-104-296-3	Sequence 3, Appli
10	~	51.9	1737	'n	PCT-US94-06380-2	ď
11	52.	٥.	1679	4	US-09-517-605-14	14,
12	51.	0	1664	4	-09-582-22	'n
13	51.	50.7	1664	4	9	12
14	LΩ	45.8	1225	4	-016-434-1	12
15	834.6	44.5	1317	н	-08-153-84	45
16	4.	44.5	1317	m	-843A-4	4. 13
17	34.	44.5	1317	4	-09-088-33	45
19	4.	44.5	1317	ល	153-4	45
19	198.4	10.6	1119	4	-09-170-496D-6	92
20	98	10.6	1679	-	08-202-05	Ġ
21	σ	10.	1679	-1	-08-076-09	ທັ
22		10.	1679	-	-08-701-2	'n
23	98	10.6	1679	7	-08-284-586-	'n
24	198.4	ö	1679	N	8-80	'n,
25	198.4	ö	67	7	08-802-	'n
26	œ	10.6	1679	0	-238-	'n
27	98	ö	67	~	US-08-801-228-5	Sequence 5, Appli

'n	7	Sequence 1, Appl:	199,	65	65	19	Н	Ä		Sequence 980, App	Sequence 1, Appl:	Sequence 173, Apj	Sequence 23, App.	23,	23,	App	
PCT-US94-06380-3	US-08-982-493-7	US-08-628-655-1	US-09-170-496D-199	US-09-299-843A-65	US-09-088-337B-65	US-09-170-496D-19	US-09-016-434-1052	US-08-709-838-1	US-08-829-839-1	US-09-023-655-980	US-09-624-594-1	US-09-170-496D-173	US-08-153-848-23	US-09-299-843A-23	US-09-088-337B-23	PCT-US93-11153-23	
Ŋ	M	m	4	'n	4	4	4	ო	m	4	4	4	7	m	4	'n	
1679	2818	2818	1119	2085	2085	1107	1293	1670	1670	1670	1670	1107	2751	2751	2751	2751	
10.6	10.6	10.6	10.5	10.4	10.4	10.3	10.3	10.3	10.3	10.3	10.3	10.2	10.0	10.0	10.0	10.0	
198.4	198.4	198.4	196.8	195.8	195.8	193.8	193.8	193.8	193.8	193.8	193.8	192.2	186.8	186.8	186.8	186.8	
29	30	31	32	33	34	35	36	37	38	39	40	4	42	43	44	45	
	.4 10.6 1679 5 PCT-US94-06380-3 Seguence 3,	1 10.6 1679 5 PCT-US94-06380-3 Sequence 3, 10.6 2818 3 US-08-982-493-7 Sequence 7,	1 10.6 1679 5 PCT-US94-06380-3 1 10.6 2818 3 US-08-982-493-7 1 10.6 2818 3 US-08-658-1	1 10.6 1679 5 PCT-US94-06380-3 Sequence 3, 1 10.6 2818 3 US-08-982-493-7 Sequence 7, 1 10.6 2818 3 US-08-628-655-1 2 10.6 1119 4 US-09-170-496D-199 Sequence 199	1 10.6 1679 5 PCT-US94-06380-3 Sequence 3, 10.6 2818 3 US-08-982-493-7 Sequence 7, 10.6 2818 3 US-08-628-655-1 Sequence 1, 10.6 11.9 4 US-09-170-496D-199 Sequence 19, 10.4 2085 3 US-09-299-843A-65 Sequence 65, 10.4 2085	1 10.6 1679 5 PCT-US94-06380-3 Sequence 3, A 10.6 2818 3 US-08-982-493-7 Sequence 7, A 10.6 2818 3 US-08-628-655-1 Sequence 1, A 10.6 1119 4 US-09-170-496D-199 Sequence 1, A 10.4 2085 3 US-09-299-643A-65 Sequence 65, Sequence 65, 10.4 2085 4 US-09-088-3718-65 Sequence 65,	1 10.6 1679 5 PCT-US94-06380-3 Sequence 3, 10.6 2818 3 US-08-982-493-7 Sequence 7, 2818 3 US-08-0828-493-7 Sequence 7, 2810.5 1119 4 US-09-170-496D-199 Sequence 193 10.4 2085 3 US-09-299-843A-65 Sequence 65, 2810.4 2085 4 US-09-088-378-65 Sequence 65, 2810.4 2085 4 US-09-088-378-65 Sequence 65, 2810.4 US-09-09-170-496D-19 Sequence 193 10.1 US-09-09-170-496D-19 Sequence 193 10.1 US-09-09-170-496D-19	1 10.6 1679 5 PCT-US94-06380-3 Sequence 3, 10.6 2818 3 US-08-982-493-7 Sequence 7, 2818 3 US-08-982-493-7 Sequence 7, 2818 3 US-09-170-496D-199 Sequence 1968 10.4 2085 3 US-09-170-496D-199 Sequence 65, 3 US-09-088-337B-65 Sequence 65, 3 US-09-088-337B-65 Sequence 65, 3 US-09-088-337B-65 Sequence 65, 3 US-09-088-337B-65 Sequence 65, 3 US-09-170-496D-199 Sequence 106, 3 US-09-170-496D-199 Sequence 106, 3 US-09-016-434-1052 Sequence 106, 3 US-09-016-434-1052	198.4 10.6 1679 5 PCT-US94-06380-3 Sequence 3, 198.4 10.6 2818 3 US-08-982-493-7 Sequence 7, 198.4 10.6 2818 3 US-08-628-655-1 Sequence 7, 196.8 10.5 1119 4 US-09-170-496D-199 Sequence 195.8 10.4 2085 3 US-09-29-843A-65 Sequence 65, 195.8 10.4 2085 4 US-09-189-65 Sequence 65, 193.8 10.3 1107 4 US-09-170-496D-19 Sequence 19, 193.8 10.3 1293 4 US-09-116-434-1052 Sequence 19, 193.8 10.3 1293 4 US-09-116-434-1052 Sequence 19, 193.8 10.3 1670 3 US-09-16-434-1052 Sequence 106, 193.8 10.3 1670 3 US-09-18-38-1	198.4 10.6 1679 5 PCT US94-06380-3 Sequence 198.4 10.6 2818 3 US-08-982-493-7 Sequence 198.4 10.6 2818 3 US-08-982-493-7 Sequence 196.8 10.6 2818 3 US-09-170-496D-199 Sequence 195.8 10.4 2085 3 US-09-170-496D-199 Sequence 195.8 10.4 2085 4 US-09-170-496D-19 Sequence 195.8 10.3 1107 4 US-09-170-496D-19 Sequence 193.8 10.3 1293 4 US-09-170-496D-19 Sequence 193.8 10.3 1670 3 US-08-709-838-1 Sequence 193.8 10.3 1670 3 US-08-709-838-1 Sequence	198.4 10.6 1679 5 PCT-US94-06380-3 Sequence 3, 198.4 10.6 2818 3 US-08-928-43-7 Sequence 7, 198.4 10.6 2818 3 US-08-928-43-7 Sequence 7, 198.4 10.6 2818 3 US-08-628-655-1 Sequence 19, 195.8 10.4 2085 3 US-09-170-496D-199 Sequence 19, 195.8 10.4 2085 3 US-09-9843A-65 Sequence 65, 193.8 10.3 1107 4 US-09-10-943A-65 Sequence 65, 193.8 10.3 1293 4 US-09-016-434-1052 Sequence 10, 193.8 10.3 1670 3 US-08-829-839-1 Sequence 11, 193.8 10.3 1670 4 US-09-016-380 Sequence 10, 193.8 10.3 1670 4 US-09-023-655-980 Sequence 9, 193.8	198.4 10.6 2818 3 US-0892-08380-3 Sequence 3. 198.4 10.6 2818 3 US-08-982-493-7 Sequence 7. 198.4 10.6 2818 3 US-08-982-493-7 Sequence 7. 198.4 10.6 2818 3 US-08-628-655-1 Sequence 7. 196.8 10.4 2085 3 US-09-170-96D-199 Sequence 15. 10.4 2085 4 US-09-088.337B-65 Sequence 65. 193.8 10.3 1107 4 US-09-088.337B-65 Sequence 15. 193.8 10.3 1670 3 US-08-0829-839-1 Sequence 17. 193.8 10.3 1670 3 US-08-829-839-1 Sequence 17. 193.8 10.3 1670 4 US-09-023-655-980 Sequence 17. 193.8 10.3 1670 4 US-09-023-655-980 Sequence 17. 193.8 10.3 1670 4 US-09-624-594-1 Sequence 17. 193.8 10.3 1670 4 US-09-624-594-1	198.4 10.6 1679 5 PCT-US94-06380-3 Sequence 3. 198.4 10.6 2818 3 US-08-928-493-7 Sequence 7. 198.4 10.6 2818 3 US-08-628-655-1 Sequence 7. 198.8 10.5 1119 4 US-08-170-496D-199 Sequence 1. 195.8 10.4 2085 3 US-09-299-843A-65 Sequence 65 195.8 10.4 2085 4 US-09-170-496D-199 Sequence 65 193.8 10.3 1293 4 US-09-106-434-1052 Sequence 15 193.8 10.3 1670 3 US-08-829-839-1 Sequence 1. 193.8 10.3 1670 3 US-08-829-839-1 Sequence 1. 193.8 10.3 1670 4 US-09-023-655-980 Sequence 1. 193.8 10.3 1670 4 US-08-624-5980 Sequence 1. 193.8 10.3 1670 4 US-08-624-5980 Sequence 1. 193.8 10.3 1670 4 US-08-624-5980 Sequence 1. 193.8 10.3 1670 4 US-08-624-5980 Sequence 1. 193.8 10.3 1670 4 US-08-624-5980 Sequence 1. 192.2 10.2 10.7 4 US-09-624-5973 Sequence 1.	198.4 10.6 1679 5 PCT-US94-06380-3 Sequence 198.4 10.6 2818 3 US-08-982-93-7 Sequence 198.4 10.6 2818 3 US-08-982-93-7 Sequence 198.8 10.6 2818 3 US-08-982-93-7 Sequence 195.8 10.4 2085 3 US-09-170-496D-199 Sequence 195.8 10.4 2085 3 US-09-299-843A-65 Sequence 193.8 10.3 1293 4 US-09-088-337B-65 Sequence 193.8 10.3 1670 3 US-09-088-34-1 Sequence 193.8 10.3 1670 3 US-09-0838-1 Sequence 193.8 10.3 1670 4 US-09-023-655-980 Sequence 193.8 10.3 1670 4 US-09-023-655-980 Sequence 193.8 10.3 1670 4 US-09-023-655-980 Sequence 193.8 10.2 1670 4 US-09-64-594-1 Sequence 186.8 10.0 2 1107 4 US-09-170-4862-173 Sequence 186.8 10.0 2 1107 4 US-09-173-848-2-3 Sequence 186.8 10.0 2 1107 4 US-09-173-848-2-3 Sequence 186.8 10.0 2 1107 4 US-09-170-4862-173 Sequence	196.4 10.6 2818 3 US-0892-033 Sequence 3. 198.4 10.6 2818 3 US-08-982-493-7 Sequence 7. 198.4 10.6 2818 3 US-08-628-655-1 Sequence 7. 198.8 10.4 2085 3 US-08-628-655-1 Sequence 17. 196.8 10.4 2085 4 US-09-109-9843A-65 Sequence 18. 10.4 2085 4 US-09-088-337B-65 Sequence 19. 10.3 1107 4 US-09-088-337B-65 Sequence 19. 10.3 1107 4 US-09-1070-960-19 Sequence 19. 193.8 10.3 1670 3 US-08-829-839-1 Sequence 19. 193.8 10.3 1670 3 US-08-829-839-1 Sequence 19. 193.8 10.3 1670 4 US-09-624-594-1 Sequence 19. 192.2 10.2 1107 4 US-09-624-594-1 Sequence 19. 192.2 10.2 1107 4 US-09-624-594-1 Sequence 23. 186.8 10.0 2751 3 US-08-299-843A-23 Sequence 23. 186.8 10.0 2751 3 US-09-299-843A-23 Sequence 23.	198.4 10.6 1679 5 PCT-US94-06380-3 Sequence 3. 198.4 10.6 2818 3 US-OB-928-249-7 Sequence 7. 198.4 10.6 2818 3 US-OB-928-249-7 Sequence 7. 198.8 10.6 2818 3 US-OB-628-655-1 Sequence 7. 195.8 10.4 2085 3 US-OP-170-496D-199 Sequence 195.8 10.4 2085 4 US-OP-170-496D-199 Sequence 191.8 10.3 1107 4 US-OB-08-8131-6 Sequence 6. 193.8 10.3 1670 3 US-OB-929-818-1 Sequence 1. 193.8 10.3 1670 3 US-OB-929-819-1 Sequence 1. 193.8 10.3 1670 4 US-OB-929-819-1 Sequence 1. 193.8 10.3 1670 4 US-OB-62-839-1 Sequence 1. 192.2 10.2 1107 4 US-OB-62-85-980 Sequence 1. 192.2 10.2 1107 4 US-OB-928-818-1 Sequence 1. 186.8 10.0 2751 1 US-OB-829-833-3 Sequence 2. 186.8 10.0 2751 4 US-OB-88-3378-23 Sequence 2. 186.8 10.0 2751 4 US-OB-88-3378-23 Sequence 2. 200.0000000000000000000000000000000	198.4 10.6 1679 5 PCT-US94-06380-3 Sequence 3. 198.4 10.6 2818 3 US-OB-928-243-7 Sequence 7. 198.4 10.6 2818 3 US-OB-928-243-7 Sequence 7. 198.8 10.6 2818 3 US-OB-628-655-1 Sequence 7. 195.8 10.5 1119 4 US-OS-170-496D-199 Sequence 195.8 10.4 2085 4 US-OS-170-496D-199 Sequence 65 195.8 10.3 1107 4 US-OS-170-496D-19 Sequence 1913.8 10.3 1293 4 US-OS-170-496D-19 Sequence 1913.8 10.3 1670 3 US-OB-016-434-1052 Sequence 1913.8 10.3 1670 3 US-OB-028-819-1 Sequence 1913.8 10.3 1670 3 US-OB-028-655-980 Sequence 1913.8 10.3 1670 4 US-OS-170-496D-17 Sequence 1913.8 10.3 1670 4 US-OS-170-496D-17 Sequence 1913.8 10.0 2751 1 US-OB-153-848-23 Sequence 2751 3 US-OB-028-644-33 Sequence 2751 4 US-OS-98-843-3 Sequence 2751 4 US-OS-98-843-3 Sequence 2751 86.8 10.0 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence 2751 5 PCT-US93-11153-23 Sequence

## ALIGNMENTS

			10;
			Gaps
	Receptor		n 1737; s 136;
	ы ж ж		Length Indels
	Type 1		
	11. 8 T	disk K	.4; DB 1; 2.3e-195; ches 301;
RESULT 1 US-08-202-056-4 US-08-202-056-4 ) Sequence 4, Application US/08202056 ) Patent No. 5440021 ) GENERAL INFORMATION ) APPLICANT: Hebert, Caroline ) APPLICANT: Kim, Kyung Jin	NVENTION: Antibodies to Human SEQUENCES: 8 ENCE ADDRESS: 460 Point San Bruno Blvd outh San Francisco California USA.	MEDIUM TYPE: 5.25 inch, 360 Kb floppy d COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible COMPARE: Batin (Genentech) CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/202,056 FILING DATE: 25-FEB-1994 CLASSIFICATION NUMBER: 07/677211 APPLICATION NUMBER: 07/677211 APPLICATION NUMBER: 07/677211 APPLICATION NUMBER: 07/677211 ATTORNEY/AGENT INFORMATION: NAME: LOVE, Richard B. REGISTRATION NUMBER: 34,659 REFERENCE/DOCKET NUMBER: 706P3 TELEPHONE: 415/25-5530 TELEPHONE: 415/25-5530 TELEPHONE: 415/25-5530 TELEPHONE: 415/25-5530 TELEPHONE: 1737 bases TYPE: nucleic acid SEQUENCE CHARACTERISTICS: LENGTH: 1737 bases TYPE: nucleic acid STRANDEDNESS: single 105-00-202-056-4	Query Match 51.9%; Score 974.4; Best Local Similarity 76.1%; Pred. No. 2.3. Matches 1391; Conservative 0; Mismatches

RESULT 2 US-08-076-093A-3 8 6 8 6 8 6 8 6 8 6 2 6 6 6 ö 셤 à g දු ද ò 1009 960 AGCTITCTICCACIGITGICIGAACCCCAICCICIAIGCTITCCIIGGAGCCAAAITIAA 1019 AAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTC 1129 CAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCA 1189 949 899 529 589 649 614 709 629 169 719 829 833 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 349 409 374 469 434 554 169 AATGGGCTCAGGGAACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAATGCTAA 194 254 494 80 CAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACACCGAGGA 134 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA 229 TITICAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGTTGACTGGCATAGTCGG 289 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 109 79 315 GTACAGGCTGCACTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGC CIACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA CTGGCCATCGTCCACGCCACCACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGT ccccaatgacttgtgggtggttgtgttctagtttcagcatcatggttggccttatct CTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCAT CAAGGAAGGATGTGACTTCGAGAGCATTGTGCACAAGGGGATCTCCATCACAGAGGCCCT CGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAA AGTIGAIGCCAIGGCIGACTGGIACTTTGGGAAATTTTTGTGTAAGGCTGTCCATAICAT 375 AGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCAT 590 AGICTATGIGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGC CGACGTCAGCGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTA CCCGATAGCCTGTGGTGGTGTTTCAATTCCAGCATATAATGGTGGTCTCATCCT GIACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGC CCTCGCCATTGTCCCACCACCAACAGTCAAAGGCCCAAGGAAACTGCTGGAAAAAGGC GCCCGGCATCGTCATCCTCTGTTACTGCATCATCTCTTAAGCTGTCACACTCCAA 20 GCGCGCGCAAAGTGACGCCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAAC 110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA 840 615 1010 1020 290 495 650 710 9 770 830 780 890 950 900 135 410 470 435 530 20 170 230 255 350 8 8 8 දි දි q ò g qq 8 8 8 do Qy Db Q ö  $\dot{\delta}$ 8 8  $\ddot{\circ}$ g ò 엄 8 8 Dp  $\delta$ g ò

1489 TTATA----TAAATTTTTTTTTTTTATTTCATATTGATGTGTGTCTAGGCAGGACCTGTGGCC AAGTTCTTAGTAGCTGTTTATCTGTGTGTAGGACTGTAGAACTGTAGAAGAAGAAACTGA ACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCA 1080 CAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTCTTCAAGTTTTCA TITICIGIAAAAGAIGGCACTIAAAACCAAAGCCIGAAAIGGIGGIAGAAAIGCIGGGGI TITITITGITIGITITITICGITITICAGGAGIAGATIGACTICAGICCCTACAAT 1192 TTTTAAGTTACACATTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTTATTGC TTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTTGTGAGGTTTGACTTTAATTT -------inceptate de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra dela contra de la contra de la contra de la contra de la contra dela contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra del la contra del la contra del la contra de la contra del la contra de la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la crccadciraa-----cacadargraaagacrtrrrrrrafacgaraaraacrrrr ATATAAATATTGTTTTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCC 1252 1624 1140 1250 1310 1370 1306 1362 1490 1414 1474 1610 1670 1526 1730 1790 1850 1190 1430 1550 1489 1582

Human PF4A COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy
COMPUTER: IBM PC compatible Sequence 3, Application US/08076093A

Patent No. 5543503

GENERAL INPORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Lee, James
APPLICANT: Lee, James
APPLICANT: Jin Kim, K.
TITLE OF INVENTION: Antibodies to H
NUMBER OF ENGURNES:
GORRESPONDENCE ADDRES:
ADDRESSEE: Genenech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California Blvd

disk

m

```
1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITITIGITIGITIGITITITICAGITITCAAGAGIAGALIGACITCAGICCCTACAAT 1789
                                                                                                                                                                                                                                                                                                                                                            1009
                                                                                                                                                                                                                                                                                       949
                                         629
                                                                                                           719
                                                                                                                                               829
                                                                                                                                                                               779
                                                                                                                                                                                                                   889
                                                                                                                                                                                                                                                     839
                    GGGCCACCAGAAGGCCCTCAAGACCACAGTCATCTTCTTCTTCGC
                                                                                                                                                                                                                                                                                                                        840 CTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCAT
                                                                                                                                                                                                                                                                                                                                                            CAAGGAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                    1010 GGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                       960 AGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCCAAATTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1252 frigiriogarrrrigi-----cricidrircirriacirrrigidaacirraarrigacira
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTGCTGTAGAAGAGGCACTTATAACCAAAGCCCAAAGTGGT-ATAGAAATGCTGG---
                                                                                                             720 GCCTGGTATTGTCATCCTGTCTGCTATTGCATTATCATCTCCAAGCTGTCACACTCCAA
                                                                                                                                                                                                                     GGGCCACCAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGCTCTGCCCAGCATGCACTCCATGAGCAGAGAGGCTCCAGCCTCAAGATCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020 AACCTCTGCCCAGCACGCACTCACCTCTGAGCAGAGGGTCCAGCCTCAAGATCCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1080 CAAAGGAAAGGGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTCTTCAAGTTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CICCAGCTAA------CACAGATGTAAAAGACTITITITATACGATAAATAACTTIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTTAATTGACTTTGGGAGTTTATGTTCCTCTAGTTTTGTGAGGTTTGACTTTAATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATATAAATATTGTTTTTTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGTICITAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAAGAAGAAACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1362 AAGTTCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAA-----AAGGGAACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1414 ACATTCCAGAGCGTGTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTTTATGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITICIGIAAAAGAIGGCACTIAAAACCAAAGCCIGAAAIGGIGGIAGAAAIGCTGGGGT
                                                                                                                                               GCCCGGCATCGTCATCCTCTCTGTTACTGCATCATCATCTTAAGCTGTCACACTCCAA
                                                                                                                                                                                                                                                                                        CTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCAT
                                                                                                                                                                                                                                                                                                                                                                                         900 caagcaaggergreagringagaacacacagaggergregagarriccarcagggeccr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAAGGAAAACCGGGGGACACTCCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCA
                                                                           CCCCGATAGCCTGTGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAGATAATCTCTCCA--------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1730
                                                                             710
                                                                                                               099
                                                                                                                                               770
                                                                                                                                                                                                                      830
                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                        890
                                                                                                                                                                                                                                                                                                                                                              950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1670
                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                           ò
                                                                                                       엄
                                                                                                                                               ò
                                                                                                                                                                           a
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                       D
                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \dot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGACAAA 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cracacacroaaccroracaccacrorccroarccrosccrrcarcacacrosaccora 494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGACGTCAGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTA 709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20 ecececcicaaagreacecceaageccricacrecrecrecagraccaccaccarcrecaas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             80 CAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACACCGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    i illili i illilililililili i illilili i illilili illililililili i illilili i i illili i i i illili i i antige
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITCAATAGGATCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  195 rricaaraaarcriccreccaccarcracrecarcarcricrirarcres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTACCGGCTGCACCTGTCAGTGGCTGACCTCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTACAGGCTGCACTGTCAGTGGCCGACCTCTTTGTCATCACGCTTCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTIGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTIGATGCCGTCCCAAACTGGTACTTTCGGAACTTCCTATGCAAGGCAGTCCATGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGICTATGIGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGGACTTCATCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             136;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.9%; Score 974.4; DB 1;
Similarity 76.1%; Pred. No. 2.3e-195;
81; Conservative 0; Mismatches 301;
OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech) CURRENT APPLICATION DATA: APPLICATION DATA: FILING DATE: I1-Jun-1993 CLASSIFICATION NUMBER: US/08/076,093A FILING DATE: 11-Jun-1993 CLASSIFICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION NUMBER: 3, 659 REFERENCE/DOCKET NUMBER: 706P2 REFERENCE/DOCKET NUMBER: 706P2 TELECHOMORICATION INFORMATION: TELEPHONE: 415/952-9881 TELEX: 910/31-7168 INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: LENGTH: 1737 nucleotides TYPE: Nucleic Acid STRANDEBNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
TOPOLOGY:
US-08-076-093A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Sim
Matches 1391;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         350 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
```

a

δ

g

ò ď

à

g

ò g 8

ò

g

ò <u>ි</u> පු  $\delta$  g 8 & à

```
960 AGCTTTCTTCCACTGTTGTCTCAACCCATCCTATGCTTTCCTTGGAGCCAAATTTAA 1019
                                                                                                                                                                                                                                                                                                                315 GIACAGGCIGCACCIGICAGIGGCCGACCICCITITATICACACGCITCCCTICIGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720 GCCTGGTATTGTCATCCTGTTGTTTGTTATCATCTCCAAGCTGTCACCTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1010 cecerrerrecacrerrecersaaccecarecrerarecerrecreses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAAGGAAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTCTTCAAGTTTTCA
                                                                                                                                                                                           290 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGAAGAAGAAGAAGAAGAACAA
                                                                                                                                                                                                                                                                                                                                                                                                             375 Agrigargocgradonaacrigaracriroggaacrirocrarocaaggoggicarocar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            555 gerchardradedrandaaredendeeteerdendacharrededacracarentee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780 GGGCCACCAGAAGCGCAAAGCCCCTCAAGACCACACACCATCCTCATCCTGGCTTTCTTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAAGCAAGGGTGTGGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCAAGGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020 AACCICTGCCCAGCACGCACTCACCTCTGTGAGCAGAGGGTCCAGCCTCAAGATCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAAGGAAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CICCAGCIAACCCITAIGCAAAGACTIAIAIAIAIAIAIAIAIAIAIAIAIAAAAGAACTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1140 crccaccrai -----cacadargraaagacrirrrrraracgaraaaracrrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTACACTGTCAACCTCTACAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGACGTCAGCCAGGGGACATCAGGGGGGATGACAGGTACATCTGTGACCGCCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGGAGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAGCAAGGATGTGACTTCGAGAGTTGTGCACAAGTGGATCTCCATCACAGAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTC
                                                              135 AATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAATGCTAA
                                                                                                                                                                                                                         CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGACAA
                                                                                                                                                                                                                                                                                                                                                                   AGTIGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cengeceanceneedeceaecaaeaeneageceaaegaaeeneneede
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCCGATAGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ccccaaraactraraaaraaraaraarackarraaacaraaraaraacrrarccr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCCGGCATCGTCATCCTCCTGTTACTGCATCATCATCTCTAAGCTGTCACACTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rircaaraaarcriccreccaccarcracrecarcarcricrraacreecarreree
                                                                                                                                                                                                                                                                                GTACCGGCTGCACCTGTCAGTGGCTGACTCCTCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               590 AGTOTATGTGGGGGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTGC
                                                                                                       TITCAATAGGATCTICCTGCCCACCATCTACTICATCATCTTGACTGGCCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                           470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                    170
                                                                                                          230
                                                                                                                                                 195
                                                                                                                                                                                                                                      255
                                                                                                                                                                                                                                                                                350
                                                                                                                                                                                                                                                                                                                                                                      410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 8 8
                                                                                          6 6
                                                                                                                                                                                 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8
                                                     g
                                           1849
                                                                                   ------TITITCAGTTTTCAGGAGTGGGTTGATTTCAGCACCTAC-AGT 1623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACACCGAGGA 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGCGCGCAAAGTGACGCCGAGGCCTGAGTGCTCCAGTAGCCACCCCATCTGGAGAAC
                                           Indels 136;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1737;
                                                                                                                                                                                                                                                                US-VOL-469-3

Sequence No. 5776457

General No. 5776457

GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: South San Erancisco
CORRESPENDENCE ADDRESS:
ADDRESSEE: Generatech, Inc.
STREET: California
COUNTRY: USA FC compatible
COMPUTER: ISM FC compatible
COMPUTER: ISM FC compatible
COMPUTER: ISM FC compatible
COMPUTER: ISM FC compatible
COMPUTER: ISM FC compatible
COMPUTER: ISM FC COMPATIBLE
SOFTWARE: Wilperin (Generatech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/701,265
FILING DATE: 11-Jun-1993
FILING DATE: 11-Jun-1993
FILING DATE: 11-Jun-1993
FILING DATE: 11-Jun-1993
FILING DATE: 12-SAR-1991
FRICK APPLICATION NUMBER: 34,659
REFERENCY/AGENT INFORMATION:
TELEPHONE: A15/225-5330
TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE: TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 51.9%; Score 974.4; DB 1; Best Local Similarity 76.1%; Pred. No. 2.3e-195; Matches 1391; Conservative 0; Mismatches 301;
                                                                                                                                                        1850 AAAAAAAAAAAAAAAAAAAAAAAAA 1877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 nucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1737 mucleotides
TYPE: Nucleic Acid
STRANDEDNESS: Single
TOPOLOGY: Linear
                                           1790 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
1582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                              a
음
                                       ò
                                                                                                                          ò
                                                                                                                                                                 g
```

614

589 9

409

254

469 434

S

QQ δ g g

ઠે

ò

 $\delta$ g ò d ઠે g à g

```
134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              710 CCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCT 769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               290 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     615 CAACG------TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTA 659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     135 AATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAATGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         230 TTTCAATAGGAICTTCCTGCCCACCAICTACTTCAICATCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           195 TITCAATAAAICTTCCTGCCCACCATCTACTCCATCATCTTAACTGGCATTGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTIGATIGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             375 AGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  470 CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         495 CCTGGCCATCGTCCACGCCACCACAGTCAGAGGCCCAAGGAAGCTGTTGGCTGAAAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            555 GGICTATGITGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCATCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      650 CGACGTCAGCCAGGGGGACATCAGTCAGGGGGAŢGACAGGTACAŢCTGTGACCGCCTTŢA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20 edececedehaaeneadecedaeeeeneadneeneeadhaeeeacaceareneeaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         590 AGICIAIGIGGGCGICIGGAICCCAGCCCICCIGACIAIACCIGACIICAICIIIGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 51.9%; Score 974.4; DB 2; Length 1737; Best Local Similarity 76.1%; Pred. No. 2.3e-195; Matches 1391; Conservative 0; Mismatches 301; Indels 136;
APPLICATION NUMBER: US/08/076,093A
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC.1991
FRIOR APPLICATION NUMBER: 07/677211
FILING DATE: 29-MAR-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, R.C.hard B.
REGISTRATION NUMBER: 706P2
REFERENCE/DOCKET NUMBER: 706P2
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFRAX: 415/25-5530
TELEFRAX: 415/25-5530
TELEFRAX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:
LENGTH: 1737 nuclectides
TYPE: Nucleic Acid
STRANDEDNESS: Single
TOPOLOGY: Linear
US-08-284-586-3
SI.9%; SCOFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                            1429
                                                                                                                                                                                                                                     1430 AAGTTCTTAGTAGCTGTTTATCTGTGTGTGAGACTGTAGAACTGTAGAGGAAGAAACTGA 1489
                                                                                                                                                                                                                                                                                                               ACALTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCA 1549
                                                                                                                                                                                                                                                                                                                                                                                        1414 ACATTCCAGAGGGTGTAGTAATCACGTAAAGCTAGAATGATCCCCAGCTGTTTATGCA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                           TAATCTCTTCATTCCGAGGAGCACCCCACCCCACCCCCACCCCCACCCCCATTCTTAAAT 1609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1670 TTTTCTGTAAAAGATGGCACTTAAAACCAAAGCCTGAAATGGTGGTAGAAATGCTGGGGT 1729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITIAIGITACACAITITCCAGAIAIAAGAGACTGACCAGICITGIACAGTITITITIT 1309
                                                                              1252 TTGTTGGATTTTTGT-----CTTGTGTTTCTTTAGTTTTTGTGAGTTTAATTGACTTA 1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -------TTCCCGTGGAACGTTTTTCCTGTTAAGACGTGAT 1525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1526 TTTGCTGTAGAAGATGGCACTTATAACCAAAGCCCAAAGTGGT-ATAGAAATGCTGG--- 1581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1730 TITITITGTITGTTTGTTTTTTCAGTTTCAAGAGTAGATTGACTTCAGTCCCTACAAAT 1789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITITAATIGACIGIIGGGAGIITAIGIICCICTAGIITITGIGAGGIITGACIITAAITI
                                                                                                                                                                                                          1370 ATATAAATATTGTTTTTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1474 TAGATAATCTCTCCA------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -------ininicaerinicaeaereearidanincaecacciae-aer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZUMINIO USAN ZUMINIO USAN ZUMINIO USAN WEDUW TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Winhatin (Genetech) CURRATY APPLICATION DATA: APPLICATION NUMBER: US/08/284,586 FILING DATE: CLASSIFTCATION: 424 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1310
                                                                                                                                                                                                                                                                                                                                                                 1490
                                                                                                                                                                                                                                                                                                                                                                                                                                             1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1790
```

a

à

8

g

ò

q ò g

ò

```
170 AGIGGGGTCIGGAGACTAIGACTCCAACAAGGAACCCIGCTICCGGGAIGAAAACGICCA 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20 ececceccanadrenceccanegecricantecricantagecricecarcresand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAGGIAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels 136;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           51.9%; Score 974.4; DB 2;
.larity 76.1%; Pred. No. 2.3e-195;
Conservative 0; Mismatches 301;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TO PF4A RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READBLE FORM:

WEDIUM TYPE: 3.5 inch, 1.44 Mb floppy dis COMPUTER IBM PC comparible COMPUTER: IBM PC comparible COMPUTER: IBM PC comparible COMPUTER: MinPatin (Genencech) CURRENT APPLICATION DATA:

CURRENT APPLICATION DATA:

APPLICATION NUMBER: U$/08/805,478
FILING DATE: 10-AUG-1997
CCLASSIFTCATION: 530
PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/284586
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:

APPLICATION DATA:

APPLICATION DATA:

APPLICATION DATA:

APPLICATION DATA:

APPLICATION DATA:

APPLICATION DATA:

APPLICATION DATA:

APPLICATION DATA:

APPLICATION NUMBER: 07/810782

FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:

NAME: LOVE, RICHARD
TELEFONMUNICATION NUMBER: 34,659

REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER: 31,659
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                     Sequence 3. Application US/08805478; Sequence 3. Application US/08805478; Patent No. S974543; GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan APPLICANT: Lee, James APPLICANT: Hebert, Caroline APPLICANT: Hebert, Caroline APPLICANT: Jin Kim, K. TITLE OF INVENTION: ANTHODIES TO PF. NUMBER OF SEQUENCES: CORRESPONDENCE ADDRESS: ADDRESSE: Generaceh, Inc. STREET: 460 Point San Bruno Blvd CITY: South San Francisco STATE: California CONTENTY: USA
                              1850 AAAAAAAAAAAAAAAAAAAAAAA
                                                                                            1684 AAAAAAAAAAAAAAAAAAAAAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 1737 base pairs
TYPE: Nucleic Acid
STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 1391; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-805-478-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                              ò
                                                                               . <del>Q</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITIAIGITACACAITITCCAGATATAAGAGACIGACCAGCCITGTACAGITITITITI 1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1370 ATATAAATATTGTTTTTTTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCC 1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1430 AAGTICTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAAGAAAGTGA 1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGTICTIAGITGCTGTATGTCTCGTGGTAGGACTGTAGAA-----AAGGGAACTGA 1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1490 ACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCA 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1414 ACATTCCAGAGCGTGTAGTGAATCACGTAAAGCTAGAATGATCCCCAGCTGTTTATGCA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAATCTCTTCATTCCGAGGAGCACCCCCACCCCACCCCCACCCCCACCCCATTTTAAAT 1609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1610 IGTTIGGITAIGCIGIGIGAIGGITIGITIGGITITITITITIGITGITGITGITGITITITITI 1669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----TTCCCGTGGAACGTTTTTCCTTAAGACGTGAT 1525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTTCTGTAAAAGATGGCACTTAAAACCAAAAGCCTGAAATGGTGGTAGAAATGCTGGGGGT 1729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITITITIGETITGTITITITICAGTITICAAGAGTAGATIGACTICAGTCCCTACAAAT 1789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAGCAAGGATGTGACTTCGAGGATTGTGCACAAGTGGATCTCCATCACAGAGGCCCT 1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1010 CGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAA 1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960 AGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAAATTTAA 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGCTCTGCCCAGCATGCACTCAAACTCCATGAGCAGAGGCTCCAAGCTCCAAGATCCTTTC 1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1020 AACCTCTGCCCAGCACGCACTCACCTCTGTGAGCAGAGGGTCCAGCCTCAAGATCCTCTC 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAAAGGAAAGCGGGGGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCA 1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTCTTCAAGTTTTTCA 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CICCAGCTAACCCTTAIGCAAAGACTTAIATATATATATATATATATATATATAAAGAACTT 1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCAGCTAA-----CACAGATGTAAAAGACTTTTTTTTATACGATAAATAACTTTT 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1192 TTTTAAGTTACACATTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTTATTGC 1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITITAATIGACIGIIGGGAGITIAIGIICCICIAGIITITIGIGAGGIITIGACITAAIIT 1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1252 TTGTTGGATTTTTGT-----CTTGTGTTTCTTTAGTTTTTGTGAAGTTTAATTGACTTTA 1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTGCTGTAGAAGATGGCACTTATAACCAAAGCCCAAAGTGGT-ATAGAAATGCTGG--- 1581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        949
719
                                                             829
                                                                                                                           779
                                                                                                                                                                                             889
                                                                                                                                                                                                                               780 GGGCCACCAGCAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGC 839
                                                                                                                                                                                                                                                                                                                                                           959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAGATAATCTCTCCA-------
                                                                                                                                                                                         CTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCAT
660 CCCCAATGACTTGTGGGTGGTTGTGTTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAAGCAAGGGTGTGTGTAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCT
                                                             GCCCGGCATCGTCATCCTCTGCTGCATCATCATCTTCTAAGCTGTCACACTCCAA
                                                                                                                    720 GCCTGGTATTGTCATCCTGTCTGTTTTGTTTTTCATCTCCAAGCTGTCACACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1730
                                                                                                                                                                                                                                                                                                                         890
                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                        950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1624
                                                             770
                                                                                                                                                                                             830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
```

원 상 원

9 P

g à Op

ò

8 8

ò g Š 8 8

8

90 A

S 8

8 8 ð g 8 8

8 8

CTAGGCAGGACCTGTGGCC 1429 GTTGTTGTTGTTTTTT 1669 CCTGTTCTTAAGACGTGAT 1525 SIGAGGITIGACITAAIII 1369 |||| |||| || || || SIGAAGITIAAIIGACITA 1305 ATCCTCAGCTGTTGCTGCA 1549 SCCCACCCCATTCTTAAAT 1609 CEPTOR

```
1489
                                                                                                                                                                                                                      1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1429
                                                                                                                                                                                                                                                                                                                   1010 CGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCCAAGTTCAA 1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1252 TTGTTGGATTTTTGT-----CTTGTGTTTTCTTTAGTTTTTGTGAGTTTAATTGACTTA 1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1362 AAGTICTIAGTIGCIGTAIGICTCGIGGTAGACTGTAGAA------AAGGGAACTGA 1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCA 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1414 ACATICCAGAGCGIGIAGIGAAICACGIAAAGCIAGAAAIGAICCCCAGCIGITIAIGCA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAATCTCTTCATTCCGAGGAGCACCCCCACCCCCACCCCCACCCCCATTCTTAAAT 1609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTGCTGTAGAAGATGGCACTTATAACCAAAAGCCCAAAGTGGT-ATAGAAATGCTGG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840 creridecrecerracarregearcaecaregacrecerrearecrecresaardar
                                                                                                                                                                                                                                                 CAAGCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AACCTCTGCCCAGCACGCACTCACCTCTGTGAGCAGGAGCGTCCAGCCTCAAGATCCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1192 TTTTAAGTTACACATTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTTATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1430 AAGTICTTAGTAGCTGTTTATCTGTGGACTGTAGAACTGTAGAACTGAAGAAACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1670 TITICIGIAAAAGAIGGCACITAAAACCAAAGCCIGAAAIGGIGGIAGAAAIGCIGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCAT
                                                                                                                                                                                                                      CAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCT
                                                                                                                                                                                                                                                                                                                                                           960 AGCITICITCCACTGITGICIGAACCCCATCCICIATGCITICCTIGGAGCCAAATTTAA
                                                                                                                                                                                                                                                                                                                                                                                                              AAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITITAATIGACIGITGGGAGITTAIGITCCICTAGITTITGIGAGGITTGACTTAATIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1370 ATATAAATATTGTTTTTTTTTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTATA - - - - TAAATTTTTTTTTTCATATTCATGTGTGTCTAGGCAGGACCTGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1730 TTTTTTTTTTTTTTTTTTTTTTTTCAAGAGTAGATTGACTTCAGTTCCCTACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   crccagcraa-----cacagargraaagacrirrrrrraacgaraaaraacrrrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAGATAATCTCCCA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                      950
                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                              1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1850
                                   830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1684
                                                                                                                                                              ద
                                                                                                                                                                                                                   8 8 8
                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                            & A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ठ हे ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              දු පු
                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            රි සි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        음 중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGAACCGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCCGGCATCGTCATCCTCTCTGTTACTGCATCATCATCTCTAAGCTGTCACACTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCGCGCCAAAGTGACGCCCGAGGCCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGTGTTGCCATGGAACCGATCAGTGTGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCGGTTACCATGGA----GGGGATCAGTATATACACTTCAGATAACTACACGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATGGGCTCAGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAATGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCATTGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            caaridgarricgrearcerdereardegraadcaadaaacreagaagaacaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTACAGGCTGCACCTGTCAGTGGCCGACCTCTTTGTCATCACGCTTCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       General Grande General Consecution of the Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive Consecutive C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCCGATAGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCTCCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCCAATGACTTGTGGGTGGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTOTATIGIGGGOGTOTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGACGTCAGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    136;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 51.9%; Score 974.4; DB 2; Best Local Similarity 76.1%; Pred. No. 2.3e-195; Matches 1391; Conservative 0; Mismatches 301;
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, Richard B.
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: P0706P2P1D2
TELECOMUNICATION INFORMATION:
TELEPHONE: 415/225-5530
TELEPX: 415/225-981
TELEPX: 415/225-981
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                       LENGTH: 1737 base pairs
TYPE: Nucleic Acid
STRANDEDNESS: Single
TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAACG
                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
US-08-802-627A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         615
```

B & B & B & B

8 8

S S

g

 $\delta$ g 8 8 8 8 8

음 상 음

6 B 6

us-09-367-052-1.rni

```
960 AGCTTICTTCCACTGTTGTAGAACCCCATCCTCTATGCTTTCCTTGGAGCCAATTTAA 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780 GGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGC 839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CIGCIGGCIGCCATAITAIGIGGGGATCAGCAICGACICCIICAICCITTIGGGAGICAI 949
                                                                                                                                                                                                                                                                                                                                            494
255 CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGGACAA 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720 GCCTGGTATTGTCATCCTGCTGCTGTTATGCATTATCATCTCCCAAGCTGTCACACTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1010 CGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         crccadcraa - - - - - - cacadarcraa adacrirrrrara caraa ararrrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1192 irrraagiracacarrirricagararaaaagacrgaccaararrgracagrirrirarrec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1370 ATATAAATATTGTTTTTTTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCCGATAGCCTGTGGATGGTGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840 crerrescrirectracracarrescarcescricerccrirerrecressarcar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAGCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCTCTGCCCAGCATGCACTCCAAAGTGCAGAGGCTCCAGCCTCAAGATCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020 paccircieccadedacecacircacirciereresesadadesicadecreasearecreic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   caaaddaaaddaadaarrcarcrarrcacacraadraacrarcaadrarraca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITITAATIGACIGITGGGAGTITATGTTCCTCTAGTTTTTGTGAGGTTTGACTTAATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITATA----TAAATTTTTTTTTTTTTATTCATATTGATGTGTGTCTAGGCAGGACCTGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                  111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sss edictardinadeconcidantecendecerecidendatartecedaetreamentee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              950 CAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAAGGAAAAGCGGGGGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGACGTCAGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660 CCCCAATGACTTGTGGGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          770 GCCCGGCATCGTCATCCTCTGTTACTGCATCATCTCTTAAAGCTGTCACACTCCAA
                                                                                                                 315 gracagerecaecrereacaeceaecrecrerringicareaecrecriteges
                                                                                                                                                                       410 AGITGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                          375 Actricardecerreceaacticaractricacaactrectaricaadecadecarecat
                                                                                                                                                                                                                                                                                      CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                       590 AGICIAIGIGGCGICIGGAICCCAGCCCICCICACTAIACCIGACTICAICTITGC
                                                           350 GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1306
                                                                                                                                                                                                                                                                                            470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원 성 명
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 충염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                රු පි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                    g
                                                                                                                                                                                ò
                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 195 TTTCAATAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCATTGTGGG 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITCAATAGGATCITCCIGCCCACCAICTACITCAICAICTIGCIGGCATAGICGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCTGCTTCCGGGATGAAACGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20 ececececanagrancececanesecricasicerceneraceaceaceareaseas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels 136;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 51.9%; Score 974.4; DB 2; Best Local Similarity 76.1%; Pred. No. 2.3e-195; Matches 1391; Conservative 0; Mismatches 301;
                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
ZIP: 94080
COMPTTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
SOFRAMARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA: -LUCS
COTRARATING STSTEM: C-LUCS, MS-LUCS
CURRENT APPLICATION DATA: -LUCS
APPLICATION NUMBER: US/08/801,238
FILING DATE: 19-Feb-1997
CLASSIFICATION AFD: 830
PRIOR APPLICATION DATA: APPLICATION NUMBER: 08/284586
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA: APPLICATION NUMBER: 08/076093
FILING DATE: 11-UTN-1993
PRIOR APPLICATION DATA: APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
ATTORNEY AGENT INFORMATION: NAME: LOVE, Richard B. REGISTRATION NUMBER: 34,659
REGISTRATION NUMBER: 34,659
REGISTRATION NUMBER: 34,659
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-5530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P0706P2P1D1
                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                         Sequence 3, Application US/08801238
Patent No. 5919896
GENERAL INSORMATION:
APPLICANT: Lee, James
APPLICANT: Wood, William I.
TITLE OF INVENTION: P4A RECEPTOR
NUMBER OF SEQUENCES: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1/37 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: Nucleic Acid
STRANDEDNESS: Single
;
TOPOLOGY: Linear
US-08-801-238-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                290
```

779

769 719

589

469 434

374

649 614 709 1129

1139

В

d

8

d  $\delta$ QQ ઠે

ઠે

79

229

194

134

349

254

409

374

314

469

529 494 649 614 709 629

554

829

889

9.49 9.49

셤 ò g  $\stackrel{>}{\circ}$ a g

8 8 ò g ò

જે

g

 $\ddot{\delta}$ D.P.

```
375 AGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCAT 434
                                                                                                                                                                                                                                                                                                                                                                                                                                              195 TITCAAIAAAATCTICCTGCCCACCATCTACTCCATCATCTTTAACTGGCATTGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            615 CAACG------TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCTGGTATTGTCATCCTGTGTGTTTGCATTATCATCTCCAAGCTGTCACACTCCAA
                                                                                                                                                                                                                                                                                                    GAGTGTTGCCATGGAACCGATCAGTGTGAGTATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          435 cracacagreaaccreracageagrerecrearecregecrreareagreregacegera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCCAAGGAAGCTGTTGGCTGAAAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  590 AGICTAIGIGGGCGICTGGAICCCAGCCCICCTCGIGACIATACCIGACTICAICTITGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    660 CCCCAATGACTTGTGGGTGGTTGTGTTCCAGTTTCAGCACATCATCATGGCCTTATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTTCTTCGC
                                                                                                                                                                                                                                                                                                                                                                     350 GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTTGATGCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sss gercharghredderchedarddcheddchedharnardddachrendrhod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGACGTCAGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          710 CCCCCATAGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               770 GCCCGGCATCGTCATCTTCTTACTGCATCATCATCTTAAAGCTGTCACACTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  330 GGGCCACCAGAAGGCGCAAAGGCCTCAAGACGACAGTCATCCTCATCCTAGCTTTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCAT
                                                                                                                                                                                                                                                                              GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                       AGIGGGGICTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAACGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITCAATAGGAICTICCIGCCCACCATCIACTICATCATCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                       Score 974.4; DB 2; Length 1737; Pred. No. 2.3e-195; O; Mismatches 301; Indels 136;
TELECOMMUNICATION INFORMATION:
TELEFAX: 415/925-5830
TELEFAX: 415/925-9831
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 base pairs
TYPE: Nucleic Acid
STRANDEDNESS: Single
TOPOLOGY: Linear
US-08-801-228-3
                                                                                                                                                                                                          Query Match
Best Local Similarity 76.1%;
Matches 1391; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       410
                                                                                                                                                                                                                                                                                                                                                    170
                                                                                                                                                                                                                                                                                                                                                                                                                       170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           890
                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               දු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                    1489
                                                    1413
                                                                                       1549
                                                                                                                       1473
                                                                                                                                                          1609
                                                                                                                                                                                                                             1669
                                                                                                                                                                                                                                                                                                                                                                     1730 TITITITGTITGTITGTITTTTGAGTTTTCAAGAGTAGATTGACTTCAGTCCCTACAAT 1789
                                                                                                                                                                                                                                                                                                                                                                                                                                          -------irccgrigaacgrirrrrccidrichaagacgrigai 1525
                                                                                                                                                                                                                                                                                                  TTTTCIGTAAAAGAFGGCACTTAAAACCAAAGCCTGAAATGGTGGTAGAAATGCTGGGGGT 1729
                                                                                                                                                                                                                                                                                                                      AAGTTCTTAGTTGCTGTATGTCTCGTGCTAGGACTGTAGAA-----AAGGGAACTGA
                                                                                                                                                      TAATCTCTTCATTCCGAGGAGCACCCCACCCCCACCCCCACCCCATCTTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                     --------ririrckgririckgakgregerigkrirckgcaccrac-acr
                    AAGTTCTTAGTAGCTGTTTATCTGTGTGTAGGACTGTAGAACTGTAGAGGAAGAAACTGA
                                                                                       ACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCA
                                                                                                                                                                                                                             RESULT 8

US-08-801-228-3

Sequence 3, Application US/08801228

Patent No. 5222541

GENERAL INFORMATION:

APPLICANT: Lee, James

APPLICANT: MCOd, William I:

TITLE OF INVENTION: PF4A RECEPTOR NUCLEIC ACID

NUMBER OF SEQUENCES:

CORRESPENDENCE ADDRESS:

ADDRESSEE: Genentech, Inc.

STREET 460 Point San Bruno Blvd

CITY: South San Francisco

STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA

ZIPE: GALILOFINIA

ZUPE: 94080

COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy dis
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Winbatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/801,228
FILING DATE: 19-Feb-1997
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/284586
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-UTM-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
ATTORNEY/AGRATION:
NAME: LOVE, RICHARD
REGISTRATION NUMBER: 37,859
REGISTRATION NUMBER: 34,659
                                                                                                                                                                                          1474 TAGATAATCTCTCCA--------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: P0706P2P1D3
                                                  1362
                                                                                                                                                        1550
                                                                                                                                                                                                                                                               1489
                                                                                                                                                                                                                                                                                                  1670
                                                                                                                                                                                                                                                                                                                                  1526
                                                                                                                                                                                                                                                                                                                                                                                                                                          1790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1850
                                                                                                                                                                                                                                                                                                                                                                                                        1582
                                                                                       1490
```

```
COMPUTER READBLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: 1EM FC comparible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/104,296
FILING DATE: 24-June-1998
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/701265
FILING DATE: 22-AUG-1996
PRIOR APPLICATION NUMBER: 08/64228
FILING DATE: 06-UUN-1996
PRIOR APPLICATION NUMBER: 08/64228
FILING DATE: 06-UUN-1996
PRIOR APPLICATION DATA: 08/076093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION DATA: 08/076093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION NUMBER: 08/076093
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 90706P2C2
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH 1737 base pairs
APPLICANT: Lee, James
APPLICANT: Wood, William I.
TITLE OF INVENTION: PP4A Receptors
NUMBER OF SEQUENCES: 6
CORRESPONDENCES: 6
CORRESPONDENCES: ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: I DNA Way
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: Nucleic Acid
STRANDEDNESS: Single
TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-104-296-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ଚ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1669
                                                                                                                                                                                                                                                                                  1069
                                                                                                                                                                                                                                                                                                                                                      1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1310 TITITAATIGACTGITGGGAGTITATGTICCICTAGITITIGIGAGGITIGACTIAATIT 1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1473
                                                                                                                             1009
                                                                                                                                                                                                                                                                                                                                                                                                                                   1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1252 TYGTTGGATTTTTGT-----CTTGTGTTTTCTTTAGTTTTTGTGAGTTTAATTGACTTTA 1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1362 AAGTICTIAGTIGCIGIATGICTICGIGGIAGGACTGIAGAA-----AAGGGAACTGA 1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1490 ACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCA 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAATCTCTTCATTCCGAGGAGCACCCCACCCCCACCCCCACCCCCACCCCATTTTAAAT 1609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITICIGIAAAAGAIGGCACIIAAAACCAAAGCCIGAAAIGGIGGIAGAAAIGCIGGGGI 1729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1526 TTTGCTGTAGAAGATGGCACTTATAACCAAAGCCCAAAGTGGT-ATAGAAATGCTGG--- 1581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTTTTTGTTTGTTTGTTTTCAGTTTCAAGAGTAGATTGACTTCAGTCCCTACAAAT 1789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  959
                                                    899
            840 CTGTTGGCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTCGAAAATCAT
                                                                                                                                                                                                                                                                                                                                      960 AGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAAATTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITITAAGTIACACATITITICAGATATAAAAGACTGACCAATATIGTACAGTITITIATIGC
                                                                                                                                                                         900 CAAGCAAGGGTGTGGAGTTTGAGAACACTGTGCACAAAGTGGATTTCCATCACCGAGGCCÇT
                                                                                                                                                                                                                                                                                                                                                                                                                                       1070 AAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020 AACCTCTGCCCAGCACGCACTCACTCTGTGAGCAGAGGGTCCAGCCTCAAGATCCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAAGGAAAGCGGGGGGGACACTCTTCCGTCTCCACGAGTCAGAATCCTCCAGTTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080 CAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTCTTCAAGTTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  crccagcraa - - - - - - cacagargraaagacrrrrrrrraracaraaaraacrrrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGTICTIAGTAGCIGITIAICIGIGIAGGACIGIAGAACIGIAGAAGAAAACIGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1414 ACATTCCAGAGCGTGTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTTTATGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ------inceresasesininterinasesinasesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinasesesininterinaseses
                                                                                                                                 CAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCCATCACAGAGGCCCT
                                                                                                                                                                                                                                                                                  .010 GGCCTTCTTCCACTGTTGCCTGAACCCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1370 ATATAAATATTGTTTTTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PERSON AND THE PE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1140 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1192 '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                             ò
                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

10; 169 289 CAATGGATTGGTCATCGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGACAA 314 350 GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTCTGGGC 409 134 229 194 254 349 110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA 170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA 195 TITCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACTGGGCATTGTGGG CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGACAA 80 cagcggttaccatgga-----ggggatcagtatatacacttcagataactacccgagga 230 TITCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGG 50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 20 ececececanagrandececaneeceranderececnegraeceneeraceneerae Gaps Indels 136; Length 1737; Query Match 51.9%; Score 974.4; DB 3; Best Local Similarity 76.1%; Pred. No. 2.3e-195; Matches 1391; Conservative 0; Mismatches 301; 290 255 ö g ò

RESULT 9
US-09-104-296-3
; Sequence 3, Application US/09104296
; Patent No. 6087475
; GENERAL INFORMATION:

```
1526 TTTGCTGTAGAAGATGGCACTTATAACCAAAGCCCAAAGTGGT-ATAGAAATGCTCG--- 1581
                                                                                                                                                                                                                                                                                                                                                                                                           1730 TTTTTTTGTTTGTTTTTTCAGTTTTCAGAGTAGATTGACTTCAGTCCCTACAAT 1789
                                                                                                                                                                                                                                                                                                                                                                      1362 AAGTICTIAGTIGCIGIAIGICTCGIGGIAGGACTGIAGAA------AAGGGAACTGA 1413
                                                                                                         TAATCTCTTCATTCCGAGGAGCACCCCACCCCACCCCCACCCCCACCCCATTCTTAAAT
                                                                                                                                                                                                                       ------treceridaAcerrirection
                                                                                                                                                                                                                                                          1670 TITICIGIAAAAGAIGGCACTIAAAACCAAAGCCIGAAAIGGIGGIAGAAAIGCIGGGGT
                                       ACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCA
                                                                          1414 ACATTCCAGAGCGTGTAGTGAATCACGTAAAAGCTAGAAATGATCCCCAGCTGTTTATGCA
                                                                                                                                                1474 TAGATAATCTCTCCA-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2, Application PC/TUS9406380

Sequence 2. Napplication PC/TUS9406380

GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Genentech, Inc.
TITLE OF INVENTION: METHODS FOR TREATING INFLAMMATORY DISRODERS
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSE: Genentech, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy discompatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: DATE: PC-DS/MS-DOS
SOFTWARE: DATE: (Geneticech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/06380
FILING DATE: CLASSIFICATION:
RIGH APPLICATION
RIGH APPLICATION
APPLICATION NUMBER: 08/076093
FILING DATE: 11-UTM-1993
ATTORNEY/ABORT INFORMATION:
NAME: LOVE, RICHARD B.
REGISTRATION NUMBER: 34,659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1850 AAAAAAAAAAAAAAAAAAAAAAAAA 1877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1684 AAAAAAAAAAAAAAAAAAAAAAAAAAAAA 1711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: 460 Point San Bruno Blvd CITY: South San Francisco STATE: California COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            706P2P1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-5530
TELEFAX: 415/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
SEQUENCE T137 bases
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
PCT-US94-06380-2
                                         1490
                                                                                                             1550
                                                                                                                                                                                                                           1489
                                                                                                                                                                                                                                                                                                                                                                         1582
                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                  셤
                                                                                                   જે
                                                                                                                                              셤
                                                                                                                                                                            ò
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                            ે
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1192 'TTTTAAGTTACACATTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTTATTGC 1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1370 ATATAAATATTGTTTTTTTTTTTTTTTTTTTTAAATGAGCGTCTAGGCAGGACCTGTGGCC 1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1430 AAGTICTTAGTAGCTGTTTATCTGTGTAGACTGTAGAACTGTAGAGGAAGAACTGA 1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              950 CAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCT 1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1010 CGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAA 1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              960 AGCTITCTTCCACTGTIGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAAATTTAA 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1070 AAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGGCTCAAGATGCTTTC 1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1020 AACCICIGCCCAGCACGCACICACCICIGIGAGCAGAGGGICCAGCCICAAGAICCICIC 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCA 1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTCTTCAAGTTTTCA 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCCAGCTAA-----CACAGATGTAAAAGACTTTTTTTTATACGATAAATAACTTTT 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1310 TITITAATIGACIGITGGGAGTITAIGITCCICTAGTITITGIGAGGITTGACITAATIT 1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1252 Trigirgaartrigi-----crigicirrictriagiririrgicaagiriaartaacita 1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1306 rrrara----raaarrrrrrrrrrrcararrcarardrerdrerdededededededed 1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 959
                                                            469
                                                                                           434
                                                                                                                                   529
                                                                                                                                                                                                                                            554
                                                                                                                                                                                                                                                                                 649
                                                                                                                                                                                                                                                                                                                 555 GGTCTATGTTGGCGTCTGGATCCCTGCCTGCTGACTATTCCCGACTTCATCTTGC 614
                                                                                                                                                                                                                                                                                                                                                        709
                                                                                                                                                                                                                                                                                                                                                                                                                                769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       770 GCCCGGCATCGTCATCCTCTCTCTTACTGCATCATCATCTTAAGCTGTCACACTCCAA 829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780 GGGCCACCAGCAGAAGCGCACAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGC 839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCAT 949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTACAGGCTGCACTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTTTGGGC 374
                                                                                                                                                  CTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACGGCTA 494
                                                                                                                                                                                                         615 CAACG--------TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTA 659
                                                                                                                                                                                                                                    CTIGGCCATCGTCCACCACCACAGATCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720 GCCTGGTATTGTCATCCTGTCTGCTATTGCATTATCATCTCCAAGCTGTCACACTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAGCAAGGGTGTGAGATTTGAGAACACTGTGCACAAGTGGATTTCCATCACGAGGCCCT
                                                                                             375 Adirickieccencecaakcredracirinecakericerarecakecaciccarerea
                                                                                                                                   CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                 590 AGICTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                710 CCCCGATAGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCTCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ccccaargacricricricricricriccagrircagcacarcarderradccrrarccr
                                                            AGTTGATGCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                          CGACGTCAGCGGGGGGCATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1140
                                                                                                                                                                                                                                                                                                                                                          650
                                                            410
                                                                                                                                   470
                                                                                                                                                                      435
                                                                                                                                                                                                         530
                                                                                                                                                                                                                                            495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                      셤
                                                                                                                       8 %
                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8 8
                                                          ò
                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

ద à 요 à g

à

g

δ

S A

g &

ò

d

\$ 6 \$ 6 \$ 6 \$

유 상 원

8 6 8 6 8 6

q ò

```
USING A FACILITATOR OF RETROVIRAL ENTRY INTO
AGCTTTCTTCCACTGTTGTCTGAACCCCATCCTATGCTTTCCTTGGAGCCAAATTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITITAAGITACACAITITITCAGATATAAAAGACTGACCAATATIGTACAGITITIAATIGC
                                                                                             AAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTC
                                                                                                                                    CAAAGGAAAGCGGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCA
                                                                                                                                                                                                                                                 1252 rigirgarittrici ----cricicitricitracitricicaacitraaricacita
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATATAAATATTGTTTTTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1362 AAGTICTIAGTIGCIGIATGICICGIGGIAGGACTGIAGAA...----AAGGGAACIGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAATCTCTTCATTCCGAGGAGCACCCCACCCCCACCCCCACCCCCACCCCCATTCTTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITITAATIGACIGIIGGGAGIITAIGIICCCICTAGIITITIGIGAGGIITGACTIAAITI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGTTCTTAGTAGCTGTTTATCTGTGTGTAGAACTGTAGAACTGTAGAAGAAGAAACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACATTCCAGAATGTGTGAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITICIGIAAAAGAIGGCACIIAAAACCAAAGCCIGAAAIGGIGGIAGAAAIGCIGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITGCIGIAGAAGAIGGCACITAIAACCAAAGCCCAAAGIGGI-AIAGAAAIGCIGG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             THTTTTTGTTTGTTTTTTTTCAGTTTCAGAGTAGATTGACTTCAGTCCCTACAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1850 AAAAAAAAAAAAAAAAAAAAAAAA 1877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1684 AAAAAAAAAAAAAAAAAAAAAAAA 1711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Littman, Dan R.
APPLICANT: Kwon, Douglas S.
APPLICANT: Kwon, Douglas S.
APPLICANT: Van Kooyk, Tvette
APPLICANT: Geijtenbeck, Theo
TITLE OF INVENTION: METHODS OF USING A FAC
FILE REFERENCE: 1049-1-017
CURRENT APPLICATION NUMBER: US/09/517,605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 14, Application US/09517605
Patent No. 6391567
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAGATAATCTCTCCA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
US-09-517-605-14
                                                                                                                                                                                                                                                                        1080
                                                                                                                                                                                                                                                                                                                                                                                               1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1490
                                                                                             1070
                                                                                                                                                                                                                 1130
                                                                                                                                                                                                                                                                                                                                     1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1670
                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1582
                                                                                                                                       D
D
                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                               2 4 2 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 2 2
                                                                          8
                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          $ B $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1009
                                                                                                                                                                                 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .010 GGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAA 1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        529
                                                                                                                                                                                                                                              109
                                                                                                                                                                                                                                                                                                                                                                  169
                                                                                                                                                                                                                                                                                                                                                                                                                            134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARTGGATTGGTCATCGGTTACCAGAAGAAACTGAGAAGCATGACGACAA 314
                                                                                                                                                                                                                                                                                                     79
                                                                                                                                                                                                                                                                                                        GCGCGCGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                  CAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACACGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                  GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITCAATAGGATCTICCTGCCCACCATCTACTTCATCATCTTGTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCATTGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTGTCATCACGCTTCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTIGATGCCATGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTOTATIGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGTCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGATTCCCGACTTCATCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGACGTCAGCGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -------reactoracional de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata del contrata deligio de la contrata de la contrata de la contrata de la contrata de la contrata del contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata del contrata de la contrata del contrata del contrata del contrata de la contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ccccaargacrreregeregraciterrecagrireageacarcaregraegerraecer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCTGCTATTGTCATCCTGCTATTGCATTATCATCTCCAAGCTGTCACACTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGCCACAGAAGCGCAAGGCCCTCAAGACCACACACATCCTCATCCTTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAAGCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cccccanadecrigicalications canticcaning and contra contra contractions contractions and contractions and contractions are contracted as a contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contracti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCCGGCATCGTCATCCTCTGTTACTGCATCATCATCTTAAGCTGTCACACTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                 136;
                                                                                                                          1737;
                                                                                                                             Length
                                                                                                                                                                                 Indels
                                                                                                                       Score 974.4; DB 5;
Pred. No. 2.3e-195;
0; Mismatches 301;
                                                                                                                51.9%;
illarity 76.1%;
Conservative 0
single
STRANDEDNESS: sir
TOPOLOGY: linear
                                                                                                                    Query Match
Best Local Similarity
Matches 1391; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAACG
   ; STRANDEDNE; TOPOLOGY: PCT-US94-06380-2
                                                                                                                                                                                                                                                                                                                                                                  110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        099
                                                                                                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    615
```

1489

1413

```
AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               50.7%; Score 951.8; DB 4; ilarity 80.2%; Pred. No. 1.2e-190; Conservative 0; Mismatches 252;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 5. Application US/09582224A
Patent No. 6429308
GENERAL INFORMATION:
APPLICANT: IJJIMA, Osemu
APPLICANT: GOTO, Takeshi
APPLICANT: SHIMDA, Takashi
TITLE OF INVENTION: HIV Infection Inhibitors
FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/582,224A CURRENT FILING DATE: 2000-07-21 PRIOR APPLICATION NUMBER: PCT/JP99/06534 PRIOR FILING DATE: 1999/11/24 SUPPRER OF SEQ ID NOS: 5 SOFTWARE: Microsoft Word
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: CDNA of CXCR4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1466 TATGCATA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1544 GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
Matches 1209; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
US-09-582-224A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-582-224A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1484
                                                                                                                                                                                                                                                                                                                                                            1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1304
                                                                                                                                                                                1064
                                                                                                                                                                                                                                                                     1124
                                                                                                                                                                                                                                                                                                                1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO S
                                                                                         1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
       944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGIH:
                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                          셤
                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                          ద
                                                                                         ò
                                                                                                                                                                  \dot{\delta}
                                                                                                                                                                                                                                                  ý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGGTCT 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            831
                                                                                                                                                                                                                                                                                          GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 103
                                                                                                                                                                                                                                                                                                                                                                                  163
                                                                                                                                                                                                                                                                                                                                                                                                                            GAGAACCAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ceageaaariegecricaegegacrareacrecareaaegaaccererricegreaagaaaa 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                224 CGICCATIICAAIAGGAICTICCIGCCCACCAICTACTICAICAICTICTIGACTGGGAI 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTOGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAGTGAGAAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGGCAGTIGATGCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 891
                                                                                                                                                                                                                                                                                                                                     71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    307 GGACAAGTACAGGCTGCACTGCCGTGCCGACCTCCTTTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTTGCCAACG------TCAGTGAGGCAGATGACAGATATATCTGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGCATTATCATCTCCAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITIGCCIGCIGCCACAIAITAIGIGGGGAICAGCAICGACICCTICAICCITIGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATCATCTACACTTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTCATCTACACACACACTCTACAGCAGTGTCTCCTCATCCTCGGCCTTCATCAGCAGTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                547 AAAGGIGGICIAIGITGGCGICIGGAICCCIGCCCCCCCGGCIGACIAITCCCGACIICAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTTGCCGACGTCAGCCAGGGGACATCAGTCAGGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           criciaccccaargactrorocorocirorocagirccagirreaccacarcargoridecer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGCATCATCATCTCTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          crecaagegecaccagaagegeaagecercaagaecacagagrearcercarecresecrir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                     gogocadoagonadonaacadoconadagoconadagonos acadagos do acada a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contra do a contr
                                                                                                                                                                                                                                                                                                                                                                                  TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGA CAAGTA CCGGCTGCA CCTGTCAGTGGCTGACTCCTCTTTGTCATCACACACTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                  46;
                                                                                                                                                                                                        Length 1679;
                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                   50.8%; Score 952.8; DB 4;
80.2%; Pred. No. 7.7e-191;
iive 0; Mismatches 252;
CURRENT FILING DATE: 2000-03-02
NUMBER OF SEQ ID NOS: 17
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 14
                                                                                                                                                                                                                           Best Local Similarity 80.2
Matches 1210; Conservative
                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
                                                                                         LENGTH: 1679
                                                                                                                                                         US-09-517-605-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      884
                                                                                                                                                                                                                                                                                             44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               824
                                                                                                                                                                                                                                                                                                                                       12
                                                                                                                                                                                                                                                                                                                                                                                  104
                                                                                                                                                                                                                                                                                                                                                                                                                            72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 404
                                                                                                                                                                                                      Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B & B &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \dot{\delta}
                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           $ 8 &
                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                  ઠ
```

1423 1353 1483 9 1011 TTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTTGTGAGGTTTGAGACT 1354 Greeccaagricitagriecreratercregegraegraegacreragaa-----aaged 1405 1244 ratrecrieriscarrirrier -----crisisrirrirastrirriscassirraarr 1424 GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAAGAAGA 1406 AACTGAACATTCCAGAGCGTGTAAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTT 952 GGCCCTAGCTTTCTTCCACTGTTGTTGTCTGAACCCCATCCTCTATGCTTTTCCTTGGAGCCAA 1012 ATTTAAAACCTCTGCCCAGCACCACCTCTGTGAGCAGAGGGTCCAGCCTCAAGAT CCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG 1132 ritricaciccascraacacastsraaaasacritri-----ritraracsaraara AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT GTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGAT GAACTITITIATGITACACATTITICCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT 1364 TAATITATATAAATATTGTTTTTTTTTTTTTTTCATGTGAATGAGCGTCTAGGCAGGACCT GOCCOTCOCOTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA Gaps 46; Length 1664; Indels

1184

1244

1304 1232 1364

```
1233 Arrigoringringarinningri----crimargirindrinagiriningrigasginnaarig 1286
ATCATCAAGCAAGGAGTGTGAGTTTGAGAACACTGTGCACAAAGCAGAGTTTCCATCACCGAG
                                                                                                                                                                                                 TTTAAAACCTCTGCCCAGCACCACCTCTGTGAGCAGAGGGTCCAGCCTCAAGATC
                                                                                                                                                                                                                                                                                                                                                  TITCACTCCAGCTAACACAGATGTAAAAGACTTTTT------TTTATACGATAAATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTIATITATA----TAAATTTTTTTTTGTTTCATGTGTGTGTGTGTGGCAGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGACTGTAGAACTGTAGAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTGAACATTCCAGAATGTGTGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1395 acreaacarrecaeaecereraerraarcaeeraaaecraeaareareceeaecererr
                                                                     GCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCCATCCTCTATGCCTTCCTCGGGGCCCAAG
                                                                                                        GCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAAA
                                                                                                                                                                                                                                                        CTTTCCAAAGGAAAAGCGGGGGTGGACTCTTCCGTCTCCACGGAGTCAAATCCTCCAGT
                                                                                                                                                                                                                                                                                      1245 AACTITITIATGTTACACATTTTCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1173 CTTTTTTTAAGTTACACATTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1305 ITTITITITITAATIGACIGIIGGGAGITITAIGIICCICIAGITITIGIGAGGITITGACTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATTTATAAAATATTGTTTTTTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTG
                                                                                                                                                            TTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNALING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-016-434-1235

Sequence 1235, Application US/09016434

Sequence 1235, Application US/09016434

Sequence 1235, Application US/09016434

SENERAL INFORMATION:
APPLICANT: Janice Au-Young
APPLICANT: Jaffrey J. Sellhamer
APPLICANT: Jaffrey J. Sellhamer
APPLICANT: Jaffrey J. Sellhamer
APPLICANT: Jaffrey J. Sellhamer
APPLICANT: Jaffrey J. Sellhamer
APPLICANTION: PATHWAY GENE EXPRESSION
ITTLE OF INVENTION: PATHWAY GENE EXPRESSION
ONDRESSEE: ADDRESS:
ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
STREET: 3174 PORTER DRIVE
CITY: PALO ALTO
STATE: CALIFORNIA'
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIF: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US/09/016,434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
APPLICATION UMBER: US/(EASSIFICATION:
PRIOR APPLICATION:
APPLICATION
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1455 ATGCATA 1461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1545
                                                                                                                    941
                                                                                                                                                                                                           1001
                                                                                                                                                                                                                                                                                                          1001
                                                                                                                                                                                                                                                                                                                                                                                                 1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1485
                                                                                                                                                                 1065
                                                                                                                                                                                                                                                             1125
                                                                                                                                                                                                                                                                                                                                                       1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1365
                             881
                                                                                                        g
                                                                                                                                                            ò
                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                     8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAG 1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITGCCIGCTGCCTGCCATAITAIGTGGGGATCAGCATCGACCTCCTTCATCCTTTGGGA 944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     416 GICALCHACACAGACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGAC 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TICTACCCCAATGACTIGTGGGTGGTTGTGTTCCAGTTTTCAGCACATCATGGTTGGCCTT 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      760
                                                                                                                                                                                                                                                                                                                                                                                                                          115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCAT 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAA 880
                                                                                                                                                                                                                                                                                                                                                                          AGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCT 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAT 175
                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                      CGCAGCAGGTAGCAAAGTGACGCCGAGGCCCTGAGTCTCTCTGTTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                             GACAAGTACAGGCTGCACCTGTCAGTGGGCGGACCTCCTTTGTCATCACGCTTCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGGCCAAGGTGTTGGCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGCATTATCATCTCCAAGCTGTCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAGAAGTGGGGTCTGGAGTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGTTGACTGGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTAATTTCAATAAATCTTCCTGCCCACCATCTACTCCATCTTCTTCTTAACTGGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGTAAGGAGCATGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           236 GIGGGCAAIGGAIIGGICAICCIGGICAIGGGIIACCAGAAGAAACIGAGAAGCAIGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 356 rececedentedrecenescaacrecaachinissaachechaecaasecaican
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCATCTATACCTGACTTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Trigicia a con a contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra dela contra dela contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra dela contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra del contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCCTGCCCGGCATCGTCATCCTCTGTTACTGCATCATCATCTAAGCTGTCACAC
                                                                                                                                                                                                                                                                                   CAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITGCCGACGTCAGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGC
                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                    46;
                                                                                                                                                                                          Length 1664;
                                                                                                                                                                                       Score 951.8; DB 4; Length 1
Pred. No. 1.2e-190;
0; Mismatches 252; Indels
                                                                                                                                                                                       50.7%;
80.2%;
                                                                                                                                                                                   Ouery Match
Best Local Similarity 80.2
Matches 1209; Conservative
    TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
                                                                                           LIBRARY: GENBANK
CLONE: 9219868
US-09-023-655-1213
                                                                                                                                                                                                                                                                                   4
                                                                                                                                                                                                                                                                                                                                Н
                                                                                                                                                                                                                                                                                                                                                                          105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 285
                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    දු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            දි දි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
19
19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \dot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                   8
```

1342

1484 1394 1454

980

1035

```
741 AGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCTTACTACATTGGGA 800
                                                                         801 reaccarcacretrerecrecressaarcarcaaccaassersreacre
                                                                                                                                                                                       CCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACT
                                                                                                                                                                                                                                                                                        CTGTGAGGAGGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                1216 TATATATATATATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                    1097 ---AGACTTTTTTTTTTTTGATAAATAACTTTTTTTTAAGTTACACATTTTTCAGATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACC
                                                                                                                                               861 crerecaedadredarriccarcaceaadeceeraecrirerreacrererereaece
                                                                                                                                                                                                                   ccarccrctargcrrrccrrgaagccaarrraaaaccrcrgccaagcaccaccacc
                                                                                                                                                                                                                                                                                                                                      CCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACT
                                                                                                                                                                                                                                                                                                                                                                          1041 creirriccacreaercreaercricaerriricacreeecraeeraeareraaa----
                                                                                                                                                                                                                                                              CCATGAGCAGAGGCTCCAGCCTCCAAGATCCTTTCCAAAGGAAAGCGGGGGGGACACTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 45, Application US/08153848
Patent No. 5759804
GENERAL INFORMATION:
APPLICANT: Godiska, Ronald
APPLICANT: Gray, Patrick W.
APPLICANT: Schweikart, Vicki L.
TITLE OF INVENTION: No. 5759804el Seven Transmembrane Receptors
NUMBER OF SEQUENCES: 64
CARRESPONDENCE ADDRESS:
ADDRESSEE: Bicknell, O'Toole, Gerstein, Murray &
ADDRESSEE: Bicknell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 60606

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PACENTIN Release #1.0, Ver
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/153,848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: CLASSIFICATION NOTES: CLASSIFICATION DATA

REIGR APPLICATION DATA:
APPLICATION NUMBER: US 07/977,452
FILING DATE: 17-NOV-1992
ATTORNEY/AGENT INFORKATION:
NAME: No. 575804and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 31794
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
TELEFAX: (312) 474-6448
TELEFAX: 25-3856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1336 GTTCCTCTAGT 1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1214 TIAGTITITIGT 1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 6300 Sear
CITY: Chicago
STATE: Illinois
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
US-08-153-848-45
                                                                                                                                                                                                                             921
                                       916
                                                                                                               976
                                                                                                                                                                                       1036
                                                                                                                                                                                                                                                              1096
                                                                                                                                                                                                                                                                                                    981
                                                                                                                                                                                                                                                                                                                                          1156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                   ò
                                                                     g
                                                                                                           ò
                                                                                                                                           셤
                                                                                                                                                                                       \delta
                                                                                                                                                                                                                       P
                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           156 reracrecarcarerrerraacrescarreresedaaresarresrereerefegearea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTTACCAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCG 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TIGGGAAATITITGIGIAAGGCIGICCATAICATCIACACTGICAACCICTACAGCAGCG 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACAGTCAACCTCTACAGCAGTG 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              recrearectedecrreareagrerdacecraacearearearearearearearea 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCCAGGGGGACATCAGTC 675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTGCATTATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCA 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTGCATCATCATCTTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCA 855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                            136 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               196 ACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96 TGAAGGAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            276 ACCICCICIIIGICALCACGCIICCCIICIGGGGAGIIGAIGCCGIGGCAAACIGGIACI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCCATTGTCCACGCCACCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cccrccracracrarrcccacrrcarcrraccaaca-----rcacra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCCGATAGCCTGTGGATGGTGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    621 recherrichechentehreitzeerraretrecreecreerarrerenereretre
                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                  22;
                                                                                                                                                                                                                                                                                                                                                          Length 1225;
                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 83.3%; Pred. No. 3.3e-171;
Matches 1009; Conservative 0; Mismatches 180; Indels
             ATTORNEY AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: J. 071
REFERENCE/DOCKET NUMBER: PA-0002 US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 845-4166
INFORMATION FOR SEQ ID NO: 1235:
SEQUENCE CHARACTERISTICS:
LENGTH: 1225 base pairs
TYPE: nucleic acid
STRANDENESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                              LIBRARY: GENBANK
; CLONE: 9189313
US-09-016-434-1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

```
4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATTGTGCACACAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAA 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCC 613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GITTCAATITCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTG 793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGG 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCTACTCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       recerecterations and the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of the reconstruction of t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rrridoradaria racinica da maior a consegua a medescrica de de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de de descrica de descrica de descrica de descrica de descrica de descrica de descrica de de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de de descrica de descrica de descrica de de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de de descrica de descrica de descrica de descrica de descrica de descrica de descrica de de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica de descrica d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cargaaggaaccergrificegreaagaagaagaargeraarrificaaraaaarerreergeeeae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGACCTCCTCTTTGTCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      caaccrecretrigrearcareactrecerreageagrandargecargecaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               citrogeaacitcciatocaaeecaetccatetcarctacaeaetcaactcracaeae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCCAGGGGGACATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTACTGCATCATCTTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTATTGCATTATCATCTCCAAGCTGTCACACTCCAAGGGCCCACCAGAAGCGCAAAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAGACGACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCTGCCATATTATGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCCGATAGCCTGTGGATGGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1317;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44.5%; Score 834.6; DB 1;
83.9%; Pred. No. 4.5e-166;
live 0; Mismatches 164;
INFORMATION FOR SEQ ID NO: 45:
SEQUENCE CHARACTERISTICS:
LENGTH: 1317 base pairs
TYPE: nucleic acid
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: CDNA
FRATURE:
NAME/KEY: CDS
LOCATION: 201.1211
US-08-153-848-45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 977; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
1169 ATCTGTTTCCACTGAGTCTGGAGTCTTCAAGTTTTCACTCCAGCTAACACAGATGTAAA-- 1226
                                                                                                                                                                        TTCCGFCTCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAAACCCTTATGCAAAGA
                                                                                                                                                                                                                                                            CCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAA
                                                                   109 CTCTGTGAGCAGGGTCCAGCCTCAAGATCCTCCAAAGGAAAGCGAGGTGGACATTC
                                                                                                                                                                                                                                    1214 CTTATATATATATATATATATATGATAAAGAACTTTTTTATGTTACACATTTTCCAGAT
                                                                                                           CTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTC
                                                                                                                                                                                                                                                                                                 1274 ATAAGAGACTGACCAGTCTTGTACA 1298
                                                                                                                                                                                                                                                                                                                               1280 Arabadacrdaccaararrdaaaa 1304
                                                                                                                                                                                                                                                                                                                                                                              Search completed: May 17, 2004, 16:15:39 Job time : 171.281 secs
                                                                           1049
                                                                                                                                                                        1154
                                                                                                           1094
                                                                   셤
                                                                                                 ò
                                                                                                                                    엄
                                                                                                                                                            ò 8
                                                                                                                                                                                                                              8 8
                                           ò
                                                                                                                                                                                                                                                                                         ठे
```

```
912, App
14, Appl
912, App
75, App
75, Appl
77, Appl
20, Appl
459, Appl
1213, Appl
                                                                                                                                                                               May 17, 2004, 12:11:00 ; Search time 918.766 Seconds (without alignments) 9271.041 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                         Sequence 91
Sequence 14
Sequence 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 3
Sequence 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 2
Sequence 4
Sequence 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Published Applications NA:*

1: \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \) \cgn2 \( \
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-666-689-3
US-10-211-462-80
US-10-211-966-9
US-10-11-274-14
US-10-172-118-912
US-10-172-118-912
US-10-172-118-912
US-10-170-385-332
US-10-225-67A-75
US-10-221-660-58
US-10-341-434-177
US-10-11-341-177
US-10-11-341-177
US-10-11-341-177
US-10-11-341-177
US-10-641-643-1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2947324 seqs, 2269024515 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                           OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                    IDENTITY NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                           US-09-367-052-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1711
1711
1664
                                                                                                                                                                                                                                                                                                                                            Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                         Run on:
                                                                                                                                                                                                                                                                                                           Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Result
```

JS-09-104-063-3

848, 7, 4, 4, 7, 6, 7, 7, 8, 8, 8, 7, 4, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8,	quence 8936,	, 50 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 to 90 t	
7	US-09-796-692-8936 US-10-040-862-893	.10-040-862- -10-057-475B .10-154-884B -09-997-722- -10-251-385-	
1911/1911/1911/1911/1911/1911/1911/191		~ ~ ~ ~ ~ ~ ~ ~ ~	
4 4 4 4 8 8 8 8 8 8 8 8 8 8 8 9 8 9 8 9	287 15.	287 15. 287 15. 287 15. 8.4 10. 8.4 10.	
11111100000000000000000000000000000000	1 W 4	60 440 422 444 119 45 119 19	
	-		

## ALIGNMENTS

ZIP: 94080 COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC comparible OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/104,063
FILING DATE: 24-June-1998
CLASSIFICATION:

PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/701265
FILING DATE: 22-AUG-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/66428
FILING DATE: 06-JUN-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991

Sequence 3, Application US/09104063;
Patent No. US20020168356A1
GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Wood, William I.
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSE: Genentech, Inc.
STREET: I DAA WAY
CITY: SOUTH SAN Francisco
STATE: California
COUNTRY: USA

	1020   MACCHCIGCOCGACACCACACTCACCTCTCTCACACACTCCACCTCTCTCT	
		<u>.</u>
ATTORNEY/AGENT INFORMATION:  NAME: Love, Richard B.  REGISTRATION NUMBER: 34,659  REFREENCE/DOCKET NUMBER: P0706P2C2  TELECOMMUNICATION INFORMATION:  TELEPHONE: 415/225.5530  TELEPHONE: 415/225.5530  TELEPHONE: 415/225.5530  INFORMATION FOR SEQ ID NO: 3:  SEQUENCE CRARACTERISTICS:  LENGTH: 1737 base pairs  TYPE: Nucleic Acid  TYPE: Nucleic Acid  STRANDEDMESS: Single  1 TOPOLOGY: Linear  US-09-104-063-3		Db 720 GCCIGGIATIGICATCCIGTCCTGCTATTGCATTATCATCTCCAAGCTGTCACACTCCAA 779  630 GGGCCACCAGAAGGCCCTCAAGACGACGACACCATCCTCATCCTAGCTTTTGC 889

ന

Page

```
TITIAIGITACACATITICCAGATATAAGAGACTGACCAGTCTIGTACAGITITITITIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATATAAATATTGTTTTTTTTTTTTTTTTTTTTTTTTTTAGGCGTCTAGGCAGCACCTGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1430 AAGTTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAGAAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              coccincincacongridecorpascoccanocincinascoccincas
                                                                                                                                                                                                                                                                                                                                                      ------trecendeaacertrirectertaagacetear
                                                                                                          960 AGCTITCTICCACIGITGICIGAACCCAICCICTATGCTITCCTTGGAGCCAAATTAA
                                                                                                                                                                                                                                                                                                                                                                                      CAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1140 crccaectaa.----cacaeareraaaaeacrrrrrrrraracearaaacrrrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACTTAATTT
                                                                    ccccalicacticidecideirdicificeactiteaceacatearderredecitateer
                                                                                            geoegecarcererrecreergerracreearcarerreragerareacreeaa
                                                                                                                                             CAAGCAAGGATGTGACTTCGAGGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCT
                                                                                                                                                                                                                                                     900 CAAGCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCAAGGCCT
                                                                                                                                                                                                                                                                                                                                       AAGCTCTGCCCAGCATGCACTCCATGAGCAGAGAGGCTCCAGCCTCAAGATCCTTTC
 CGACGICAGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTA
                 CCCCGATAGCCTGTGGATGGTGGTTTTCAATTCCAGCATATAATGGTGGGTCTCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1474 TAGATAATCTCTCCA-------
                             CAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1670
                                                                                                                                                                                                                                                                                             1010
                                                                                                                                                                                                                                                                                                                                            1070
                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                         1130
                                                                                                                                                                                                                                                                                                                                                                                                                                         1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1489
      550
                                                                                                                                                 830
                                                                                                                                                                                                                                             950
                                                  710
                                                                           099
                                                                                                 770
                                                                                                                        720
                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          දු දු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요 양 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8
                                                                                                                     g
                                                                                                                                                                  g
                                                                                                                                                                                                                임
                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                               음
                                                                                                                                                                                                                                                                                    දි දි
                                                                                                                                                                                                                                                                                                                                    8 8 6
                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8686
                                                                   g
                                                                                            8
                                                                                                                                         8
                                                                                                                                                                                             à
      8 6
                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             649
                                                                                                                                                                                                                                                                                                                                                                                 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cerceccarrereaceccaccaacaercaaaeeccaaeeaaaaacreecreaaaaaeec 589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  614
                                                                                                                                                                                                                                                                                                                                                                                                                                                       169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         374
                                                                                                                                                                                                                                                                                                                                                                                                       109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             134
                                                                                                                                                                                                                                                                                                                                                                                                                              79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-LU-600-1857-13

Sequence 3, Application US/1066689

Publication No. US20040037830A1

SAPLICANT: Lee, James

APPLICANT: Lee, James

APPLICANT: Wood, William I.

TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and

TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and

TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and

TITLE OF INVENTION: Antibodies Binding Thereto

FILE REFERENCE: P0706P2C2D2C1

CURRENT APPLICATION NUMBER: US/10/666,689

CURRENT FILING DATE: 1996-08-22

PRIOR PILING DATE: 1996-08-22

PRIOR PILING DATE: 1996-08-22

PRIOR PILING DATE: 1996-08-22

PRIOR PILING DATE: 1996-08-21

PRIOR PILING DATE: 1993-06-11

PRIOR PILING DATE: 1991-02-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19

PRIOR PILING DATE: 1991-12-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITCAATAAAAICTICCTGCCCACCAICTACTCCATCATCTICTTAACTGCCAITGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTIGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACCACGGTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITCAATAGGAICTICCTGCCCACCATCTACTTCATCATCTTGTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGIGGGGICIGGAGACIAIGACICCAACAAGGAACCCIGCIICCGGGAIGAAACGICCA
                                                                                                                                                                                                                                                                                                                                                                                                                        Score 974.4; DB 13; Length 1737;
Pred. No. 5.3e-214;
0; Mismatches 301; Indels 136; Gaps
                                                                                                                                                                                                                                                                                                                                                           Query Match 51.9%;
Best Local Similarity 76.1%;
Matches 1391; Conservative (
                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Homo sapien
US-10-666-689-3
JS-10-666-689-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       555
                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6 6 6 6 6
```

1249

1251

1079

1009

949 899

829 779 883

629 769 959

1069 1019 1429

Q

g 8

\$ B &

8 3

2 d 2 d

à

1361

1549

Page

```
1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1354
                                                                                                                                                                                                                                                                                                          824
                                                                                                                                                                    644
         367
                               464
                                                     427
                                                                                                  487
                                                                                                                        584
                                                                                                                                             547
                                                                                                                                                                                                                704
                                                                            524
                                                                                                                                                                                                                                                                                                                                                                                                                                       8 6 8 6 8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                             충염
                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                    8 8
                                                                                                                                        g
                                                                                                                                                                ò
                                                                                                                                                                                      d
                                                                                                                                                                                                                                                             ò
                          à
                                                   g
                                                                    8
                                                                                            g
                                                                                                                       ઠે
                                                                                                                                                                                                                õ
                                             1849
                       1623
                                                                 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         187 IGCTAATTICAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTAACTGGCAT 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CIGGGCAGITGAIGCCAIGGCIGACIGGIACTITGGGAAAITITITGIGIAAGGCIGICCA 463
TTTTTTTGTTTGTTTGTTTTTCAGTTTTCAAGAGTAGATTGACTTCAGTCCCTACAAAT 1789
                                                                                                                                                                                                   GENERAL INCOMEATION:

APPLICANT: Murray. Richard
APPLICANT: Glynne, Richard
APPLICANT: Glynne, Richard
APPLICANT: Glynne, Richard
APPLICANT: Aziz, Nateaha
APPLICANT: Aziz, Nateaha
APPLICANT: Aziz, Nateaha
APPLICANT: Bos Biotechnology, Inc.
APPLICANT: Bos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Angiogenesis Modulators
TITLE OF INVENTION: Methods of Screening for Angiogenesis Modulators
FILE REFERENCE: 018501-006200US
CURRENT APPLICATION NUMBER: US 09/784,356
PRIOR FILING DATE: 2001-02-14
PRIOR FILING DATE: 2001-02-22
PRIOR APPLICATION NUMBER: US 60/310,025
PRIOR PILING DATE: 2001-08-03
PRIOR FILING DATE: 2001-08-03
PRIOR FILING DATE: 2001-11-29
NUMBER OF FILING DATE: 2001-11-29
NUMBER OF SEQ ID NOS: 230
SOFTWARE: Patentin Ver: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12 GCGCCACCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCAGGATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   104 TAGAGCGAGTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGTAAGGAGGATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                             -------rirircagirircagagigenticagarircagarircagacciac-agr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
50.8%; Score 952.8; DB 13; Length 1679;
Best Local Similarity 80.2%; Pred. No. 5e-209;
Matches 1210; Conservative 0; Mismatches 252; Indels 46;
                                                                                         ; Sequence 80, Application US/10211462; Publication No. US20040033495A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
CORGANISM: Homo sapiens
US-10-211-462-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 164 '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   404
 1730
                                             1790
                       1582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95
95
95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                              g
                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                 g
                                        \delta
                                                                                       δ
 à
```

1063 1123 1363 1423 1003 952 gececnaderriterrecaererrerendanceeenteereranderriteerregangen 1011 951 546 643 909 703 763 711 823 771 883 831 943 891 523 486 583 651 CCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTCTTCAAG TITICACTCCAGCIAACACAGAIGTAAAAGACTITITT-----TITATACGATAAATA 1184 ACTITITITIAAGTIACACATITITICAGATATAAAAGACTGACCAATATIGTACAGTITI TTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACT GACTTATTTATA - - - - TAAATTTTTTTTTGTTTCATATTGATGTGTGTCTAGGCAGGACCT gracccaagricriagracrarrarcrardragacraragacraraacaaaaaa 1484 AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT TAATTTATAAAATATTGTTTTGTTTGTTTCATGTGAATGAGCGTCTAGGGCAGGACCT CCTTTCCAAAGGAAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGGAATCCTCCAG AAAGGIGGICIAIGIIGGGGICIGGAICCCIGCCTCCIGCTGACTAITCCCGACTICAI 772 CTCCAAGGGCCACCAGAAGGCGCAAGGCCTCAAGACCACAGTCATCCTCATCCTGGCTTT 884 CITIGCCIGCIGGCIGCCAIAIIAIGIGGGGAICAGCAICGACICCIICAICCIITIGGG 832 CTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGA 944 AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA 1004 GGCCCTCGCCTTCCTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGGCCAA GITCAAAAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGGCTCAAGAT 1244 GAACTITITIATGITACACATITICCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT CTTTGCCGACGTCAGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCG 607 CTTTGCCAACG-------TCAGTGAGGCAGATGACAGATATATCTGTGACCG centracecegaracergragaragaragarararanaracagararanaragagarar 652 cricràccccaalgacridigandericritcagricaggacarcarggridgecer 764 CATCCTGCCCGGCATCGTCATCCTCTCTTACTGCATCATCATCTTAAGCTGTCACA CTCCAAGGGCCACCAGGAAGGGCCTCAAGACGACAGTCATCCTCATAGCTTT AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCAT TATCATCTACACTTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGGA

```
944 AGICAICAAGCAAGGAIGIGACTICGAGAGCATIGIGCACAAGIGGAICTCCAICACAGA 1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  952 ġdccchadcrircriccacidirdrcidaaccccarcciaidcrircrirdcarrdsagccaa 1011
                                                                                                                                                                                                                                            712 TATCCTGCCTGGTATTGTCATCCTGTCCTATTGCATTATCATCTCCAAGCTGTCACA 771
                                                                                                                                                                                                                                                                                                                                                                                             CTTTGCCTGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGG 943
                                                                                                                                                                                                                                                                                                                          772 CTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTGGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                      832 circeccierieschectraciacariescareacaresacrectrearecresa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1064 GTICAAAAGTICIGCCCAGGAIGCACICCACCAIGAGCAGGGCTCCAGCCTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1012 ATTTAAAACTCTGCCCAGCACTCACCTCTGTGAGCAGAGGGTCCAGCCTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1072 CCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      triricacticcaectaacacacacacactririr------triataccaraaata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1184 ACTTITITIABATIACACATITITICAGATATAAAAGACIGACCAATATIGIACAGITIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1406 AACTGAACATTCCAGAGCGTGTAGATGAATCACGTAAAGCTAGAAATGATCCCCAGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1004 escerrererrerrerrerrerresentation de escerrerresentation de escercerresentation de escerrerresentation de escererresentation erresentation de escererresentation de escererresentat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTTTCCAAAGGAAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1244 IATTGCTTGTTTGCATTTTTGT-----CTTGTGTTTCTTTAGTTTTTGTGAAGTTTAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1364 TAATTTATATAAATATTGTTTTTTTTTTTTTTTTTAGGCGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1298 GACTTATTTATA----TAAATTTTTTTTTTCATATTGATGTGTGTTTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGGTAGGACTGTAGAACTGTAGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1484 AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTTGCCGACGTCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCG
                                          criciaciccaalgacricidedigdrightchgrircagrircagcacardadgriggcri
                                                                                                                                                                                                         764 CATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGCATCATCATCTTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1244 GAACTITITATGITACACATTITCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT
                                                                                                              CTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-342-887-912
; Sequence 912, Application US/10342887
; Publication No. US20040058340A1
; GENERAL INFORMATION:
    APPLICANT: Dai, Hongyue
; APPLICANT: He, Yudong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1544 GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1466 TATCCATA 1473
                                                                   607 CTTTGCCAACG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1424
                                                                                                                                                                                                                                                                                                        824
                                                                                                                                                                                                                                                                                                                                                                                                     884
                                                                                                                                                                652
                         644
                                                                                                                 704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                 쉱
                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                      රු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 B 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    П
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                 \overset{\circ}{\delta}
                                                                                                                                                                                                 Sequence 9, Application US/10181906

Publication No. US20040053864A1

GENERAL INFORMATION:

GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Aming, Michael

APPLICANT: Aming, Michael

APPLICANT: Ducy, Patricia

TITLE OF INVENTION: MODULATION OF NEUROPEPTIDE Y ACTIVITY

FILE REFERENCE: 9142-020-999

CURRENT PAPLICATION NUMBER: US/10/1181,906

CURRENT FILING DATE: 2002-11-13

PRIOR FILING DATE: 2002-11-22

NUMBER OF SEQ ID NOS: 16

SOFTWARE: Patentin Version 3.0

SEQ ID NO 9

LENGTH: 1679

WADER OF SEQ ID NOS: DATE: DELECTION OF SEQ ID NO 9

LENGTH: 1679
1406 AACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTT 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    224 CGICCAITICAAIAGGAICIICCIGCCCACCAICTACIICAICAICTICIIGACIGGGAI
187 IGCIAAITICAAIAAAAICIICCCIGCCCACCAICACICCAICAICTICIIAACIGGCAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           427 IGICATCTACACAGECAACCTCTACAGGAGTGTCCTCATCCTGGCCTTCATCAGGATGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTOGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            247 renegecaanegarnegicanecregicaregernaceagaagaaacreagaageareac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCTTTTGTCATCACACTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          72 gagaaccagccerraccargga-----ggggarcagrarararacacrrcagaraacracac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 50.8%; Score 952.8; DB 13; Length 1679; Best Local Similarity 80.2%; Pred. No. 5e-209; Matches 1210; Conservative 0; Mismatches 252; Indels 46;
                                                                                                 1466 TATGCATA 1473
                                                  1544 GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
CRGANISM: Homo sapiens
US-10-181-906-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ag y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             장염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                               ò
                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
```

1063

951

891

883 831

711 823

703 651 763 1243 1363

1303

1423

951

1243

1297 1423

1465

```
1012 ATTTAAAACCTCTGCCCAGCACCCCCTCTGTGAGCAGAGGGTCCAGCCTCAAGAT 1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1124 CCTTTCCAAAGGAAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG 1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1132 TTTTCACTCCAGCTAACACAGATGTAAAAGACTTTTT-----TTTATACGATAAATA 1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1304 TITITITITITAATIGACIGITGGGAGITITAIGITCCICTAGITITIGIGAGGITTIGACT 1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1424 GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAGGAAGA 1483
                                                                                                                                                                                                                                                                                                                                                         944 AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA 1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1484 AACTGAACATTCCAGAATGTGTGTGATAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT 1543
                                                                                                                                                                                             772 CTCCAAGGGCCACCAGAAGCGCAAGAGCCCTCAAGACACCACAGTCATCCTGGCTTT 831
                                                                                                                                                      CTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCCTAGCTTT 883
                                                                                                                                                                                                                                                          884 CITIGCCIGCIGCIGCCATATIAIGTGGGGATCAGCATCGACTCCTICATCCTTTIGGG 943
                                                                                                                                                                                                                                                                                                       832 criceccieriescrecerraciacariessariescaresaciecricarecresa 891
                                                                                                    712 TATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGCATTATCATCTCCAAGCTGTCACA 771
652 CTTCTACCCCAATGACTTGTGGGTGGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCT 711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  952 GGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       892 AATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1004 GGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1064 GTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGGCTTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1244 GAACTTTTTTATGTTACACATTTTCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1298 GACTTATTATA --- TAMATTTTTTTTTTTCATATTGATGTGTGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1354 GTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAGACTGTAGAA-----AAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1184 ACTTTTTTTAAGTTÄCÄCÄTTTTTCAGÄTÄTÄÄÄAAGÄCTGÄCCÄATATTGTÄCÄGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1244 TATTGCTTGTTGRAFTTTTGT-----CTTGTGTTTTCTTTAGTTTTTGTGAAGTTTAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1406 AACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Littman, Dan R.
APPLICANT: Kwon, Douglas S.
APPLICANT: Kwon, Douglas S.
APPLICANT: Wan Kooyk, Yvette
APPLICANT: Geijtenbeck, Theo
TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF RETROVIRAL ENTRY
TITLE OF INVENTION: CELLS
TITLE OF INVENTION: CELLS
FILE REFERENCE: 1049-1-017
CURRENT APPLICATION NUMBER: US/10/151,274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1364 TAATTTATATATATATTGTTTTTTTGTTTGTGTGAATGAGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 14, Application US/10151274; Publication No. US20030064071A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1544 GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1466 TAŤĠĊAŤA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 6
US-10-151-274-14
                                                                                                                                                      824
                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 2 2
                                                  ò
                                                                                           g
                                                                                                                                        ò
                                                                                                                                                                                          g
                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 B 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCTT 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGA 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       547 AAAGGGGTCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCAT 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTTGCCAACG------TCAGTGAGGCAGATGACAGATATATCTGTGACCG 651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTTTACCCGATAGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCT 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          crescacindaneccencedaaacidenacinidesaacinecranecaagecagica 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TATCATCTACACTGTCAACCTGTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    71
                APPLICANT: Mao, Mao
APPLICANT: Roberts, Christopher U.
APPLICANT: Roberts, Christopher U.
APPLICANT: Van (* Veer, Laura Johanna APPLICANT: Van (* Vijver, Marc J. APPLICANT: Van de Vijver, Marc J.
APPLICANT: Bernards, Rene
TILE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
FILE REFERENCE: 9301-186-999
CURRENT FILING DATE: 2003-01-15
PRIOR FILING DATE: 2003-01-15
PRIOR PLICATION NUMBER: 60/380,710
PRIOR PLICATION NUMBER: 60/380,710
PRIOR PLING DATE: 2002-05-14
PRIOR PLING DATE: 2002-05-14
PRIOR FILING DATE: 2002-05-14
PRIOR FILING DATE: 2002-06-14
PRIOR PLING DATE: 2002-06-14
PRIOR FILING DATE: 2002-06-14
PRIOR FILING DATE: 2002-06-14
PRIOR FILING DATE: 2002-06-14
PRIOR FILING DATE: 2002-06-14
PRIOR PLING DATE: 2002-06-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72 GAGAACCAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              224 CGTCCATTICAATAGGATCTICCTGCCCACCATCTACTTCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              187 recraatricaaraaarcriccreccaccarcracreccarcarcricriraacrescar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAGGCAGTCTATGTGGGGGGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTTGCCGACGTCAGCCAGGGGGACATCAGTCAGGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12 degendendennadrandennadrencerchadecerrandracerchadeceners
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          50.8%; Score 952.8; DB 13; Length 1679;
80.2%; Pred. No. 5e-209;
ive 0; Mismatches 252; Indels 46;
Linsley, Peter S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 80.2
Matches 1210; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Hom
US-10-342-887-912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
```

셤

8 8 8

8 à g 8 8 8

40 40 40 40

6 6 6

6 6 6 6

g

1063

1003 951 1183 1131

1071

1303 1243

```
1132 TTTTCACTCCAGCTAACACAGATGTAAAAGACTTTTT-----TTTATACGATAATA 1183
                                                                                                                                                                                                                                                                                                                                                                                   rariscricricarriris.-----cristsriricriritariritatari
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GIGGCCAAGTICTIAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1354 dideccalditeriladirecielareteregradaereteragaa------AAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cererecanadeanadedaderecarrenterererecaetadadererenene
                                                                                                                                                                                                                                                                                                                        TTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                1364 TAATTTATATAAATATTGTTTTTTTTTTTTTTGTGAATGAGGGGTCTAGGGAGCTT
                                                                                                  GGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAA
                                                                                                                                                       GAACTTTTTATGTTACACATTTTCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                1298 GACTTATTTATA----TAAATTTTTTTTTTCTTCATATTGATGTGTGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1484 AACTGAACATTCCAGAATGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT
                                                                                                                                     1064 GITCAAAAGCICTGCCCAGCAIGCACTCAACTCCAIGAGCAGAGGCICCAGCCTCAAGAI
                                                                                                                                                                                          CCTTTCCAAAGGAAAGCGGGGGGGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG
CTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGA
                                             GGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA
                          944 AGTCATCAAGGAAGGATGTGACTTCGAGGATTGTGCACAAGTGGATCTCCATCACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Mao, Mao Applicant: Mac Applicant: Roberts, Chris Applicant: Van 't Veer, Laura Applicant: Van 't Veer, Laura Applicant: Van 't Veer, Marc Applicant: Van 'd Vijver, Marc Applicant: Bernards, Rene TITILE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients FILE REPERENCE: 9301-175-999 CHRENT APPLICATION NUMBER: 60/380,770 PRIOR PLILATION NUMBER: 60/380,770 PRIOR FILING DATE: 2002-06-14 NUMBER OF SEQ ID NOS: 2699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: NM_003467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 912, Application US/10172118 Publication No. US20030224374A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Dai, Hongyue
APPLICANT: He, Yudong
APPLICANT: Linsley, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1466 TATGCATA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1544 GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 7
US-10-172-118-912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 912
LENGTH: 1679
                                                                                                                                                                                                                                                                                                                                                                                             1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1424
                                                                                                                                                                                                                                                                                                            1244
                                                                                                                                                                                                                                                                                                                                                                 1304
                                                                                                                                                                                                1124
                                                                                                                                                                                                                          1072
                                                                                                                                                                                                                                                    1184
                                                                                      1004
     832
                                                          892
                                                                                                               952
                                                                                                                                                               q
                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                            Dp
                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                           g
                                                                                                                                         ઠે
                                                                                                                                                                                             ò
                           ò
                                                    g
                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITTGCCIGGTGGCTGCCATAITAIGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGG 943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATCCTGCCGGCATCGTCATCCTCTGTTACTGCATCATCTTCTAAGCTGTCACA 823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         711
                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                     186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CreegeAgirgargeceregeaacregractrieggaacricciargeaaggagica 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     486
                                                                                                                                                                                                                                                                                                126
                                                                                                                                                                                                                                                                                                                                                                                 283
                                                                                                                                                                                                                                                                                                                                                                                                            246
                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTOGGCAATGGAATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGCTAAGGAGCATGAC 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            463
                                                                                                                                                                                                                103
                                                                                                                                                                                                                                                                     104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 163
                                                                                                                                                                                                                                                                                                                           223
                                                                                                                                                                                                                                         71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATCCTGCCTGGTATTGTCATCCTGTCTGCTATTGCATTATCATCTCCAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ccittacccccanadccreregearegregerrecantrocaccatalaaregregerer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTTGCCGACGTCAGCGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCTACCCCAATGACTTGTGGGTGGTTGTTTCAGTTTCAGCACCATCATGGTTGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCAAGGGCACACAGAAGCGCAAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT
                                                                                                                                                                                                                                                                                                                                                  127 cgaggaarigggcicagggactargacrccargaaggaacccrgrtrccgrgaagaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                      247 IGIGGGCAAIGGAIIGGICAICCIGGICAIGGGITACCAGAAGAAACIGAGAAGGAIGAC
                                                                                                                                                                                                             GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                    degendeaddatadeangtenedecedaddecetaddecetecagtagecagecetere
                                                                                                                                                                                                                                                                                            72 GAGAACCAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC
                                                                                                                                                                                                                                                                                                                                                                                CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCATGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                 GGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCTT
                                                                                                                                                                                                                                                                                                                           CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                       Gaps
                                                                                                                                                                                       46;
                                                                                                                                                          Length 1679;
                                                                                                                                                            Score 952.8; DB 13; Length
Pred. No. 5e-209;
0; Mismatches 252; Indels
       CURRENT FILING DATE: 2002-05-20
PRIOR PEDLICATION NUMBER: US/09/517,605
PRIOR FILING DATE: 2000-03-02
NUMBER OF SEQ ID NOS: 17
SSOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 14
LENGTH: 1679
                                                                                                                                                              50.8%;
ilarity 80.2%;
Conservative
                                                                                                        TYPE: DNA
, ORGANISM: Homo sapiens
US-10-151-274-14
                                                                                                                                                               Query Match
Best Local Similarity
Matches 1210; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        584
                                                                                                                                                                                                                                               12
                                                                                                                                                                                                                                                                                                                                                                                      224
                                                                                                                                                                                                                                                                                                                                                                                                                                            284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ેં
                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                         \delta
```

1483

```
1406 AACTGAACATTCCAGAGCGTGTAGTGATCACGTAAAGGTAGAAATGATCCCCAGCTGTT 1465
                                                                    ATTIAAAACTICTGCCCAGCACGCACTCTGTGAGCAGAGGGTCCAGCCTCAAGAT 1071
952 GGCCCTAGCTTTCCTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAA 1011
                                                                                                        1072 CCICCICCAAAGGAAAGCGAGGGGGACATICATCTGITICCACTGAGTCTGAGTCTTCAAG
                                                                                                                                                                                                          TITICACTCCAGCTAACACAGATGTAAAAGACTTTTT-----TTTATACGATAAATA
                                                                                                                                                                                                                                                                                 TITITITITITAATIGACTGITGGGAGTTTATGITCCTCTAGTTTTTGTGAGGTTTGACT
                                                                                                                                                                                                                                                                                                                                                                                               1364 TAATTTATATAAATATTGTTTTTTTTTTTTCATGTGAATGAGCGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                             1298 GACTTATTTATA----TAAATTTTTTTTTTCATATTGATGTGTGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1354 dridicchaerrichtaerracherereraghadakrichadak-----k-aada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1484 AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT
                                                                                                                                                                                1244 Tatracrigiraearrrrigi------crigicirricriracrirricidaacriraarr
                                                                                                                                                                                                                                                    1244 GAACTTTTTATGTTACACATTTTCCAGATATAAAGAGACTGACCAGTCTTGTACAGTTTT
                                       GTTCAAAAGCTCTGCCCAGCATGCACTCCAACTCCATGAGCAGAGGCTCCAGCCTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1679;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
50.8%; Score 952.8; DB 13;
Best Local Similarity 80.2%; Pred. No. 5e-209;
Matches 1210; Conservative 0; Mismatches 252;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Ward, Neil Raymond
APPLICANT: Ward, Neil Raymond
APPLICANT: Kan, On
APPLICANT: Kan, On
APPLICANT: Harris, Robert Alan
APPLICANT: Harris, Robert Alan
APPLICANT: Harris, Robert Alan
APPLICANT: Waylor, Katie Mary
APPLICANT: Rayner, William Nigel
APPLICANT: Krige, David
TILE OF INVENTION: ARALYSIS METHOD
TILE REFERENCE: 53268200100
CURRENT APPLICATION NUMBER: US/10/170,385
CURRENT APPLICATION NUMBER: PCT/GB01/0548
PRIOR PILING DATE: 2002-06-12
PRIOR FILING DATE: 2002-06-12
PRIOR FILING DATE: 2002-06-12
PRIOR FILING DATE: 2001-12-10
NUMBER OF SEQ ID NOS: 549
SEQ ID NO 332
LENGTH: 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
US-10-170-385-332
Sequence 312, Application US/10170385
Publication No. US20030203372A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1466 TATGCATA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
CORGANISM: Homo Sapiens
US-10-170-385-332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1544 GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION
                                                                                                                                                                                                                        1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1424
                                             1064
                                                                               1012
                                                                                                                 1124
                                                                                                                                                                                        1184
                                                                                                                                                                                                                                                                                                                                1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                      QC
                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                           ઠે
                                                                        g
                                                                                                               8
                                                                                                                                            8
                                                                                                                                                                                \delta
                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                          \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA 1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    944 AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA 1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   712 TATCCTGCCTGGTATTGTCATCCTGCTATTGCATTATCATCTCCAAGCTGTCACA 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT 883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTTGCCTGCTGCCATATTATGTGGGATCAGCATCGACTCCTTCATCTTTGGG 943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCGTGGA 891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    892 AATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGA 951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGGGCAGTTGATGCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         464 TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCGGCCTTCATCAGCCTGGA 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               583
                                                                                                                                                                                                                                         72 gagaaccagorraccardoa----googarcagrararacacricagaracaca 126
                                                                                                                                                                                                                                                                                                                 186
                                                                                                                                                                                                                                                                                                                                                   283
                                                                                                                                                                                                                                                                                                                                                                                     246
                                                                                                                                                                                                                                                                                                                                                                                                                         343
                                                                                                                                                                                                                                                                                                                                                                                                                                                        247 IGIGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              403
                                                                                                                                    103
                                                                                                                                                                                                         163
                                                                                                                                                                                                                                                                               223
                                                                                                                                                                      77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         704 CCTTTACCCCGATAGCCTGTGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITCIACCCCAAIGACTIGIGGGGGGGTGGTTCCAGTTTCAGCACAICATGGTTGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     764 CATCCTGCCCGGCATCGTCATCCTCCTGTTACTGCATCATCATCTTCTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTTGCCGACGTCAGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                                                                                                                                                               TGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                   CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                        187 IGCTPATITICAATABAAAICTICCTGCCCACCATCTACTCCATCATCTTTAACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                         284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                     12 dedecadeadradeaadraadeadeedaddeecradadraceedaadadeedadadaadad
                                                                                                                                                                                                          104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                       127 CGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              geacaagracoegorgeacorgroagregorgacorgorrorraroraroacocorri
                                                                Score 952.8; DB 13; Length 1679;
Pred. No. 5e-209;
0; Mismatches 252; Indels 46;
                                                                                                    .
               ; DATABASE ENTRY DATE: 2001-06-18
US-10-172-118-912
                                                                  Query Match
Best Local Similarity 80.2%;
Matches 1210; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                644
                                                                                                                                                                                                                                                                                    164
                                                                                                                                                                                                                                                                                                                                                         224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                정엄
```

g

 $\overset{\sim}{\circ}$ 

8 8

8 8 8

1483

1423 1353

g

g

g ò g ò

ò

g  $\delta$ g à d ઠે a ठे g

ò

1363

1183

9

Gaps

46;

944 AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA 1003 1063 101 1071 951 823 771 883 831 943 891 583 546 643 909 703 651 763 711 163 186 246 343 306 403 366 463 426 523 486 71 832 CIICGCCIGIIGGCIGCCIIACIACAAAATCAGCAICGACICCIICAICII carcereceregearcerearcerecretaracrecarcarereraagerearca 712 TATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGCATTATCATCTCCAAGCTGTCACA CTTTGCCTGCTGCCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGG GGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA GTTCAAAAGCTCTGCCCAGCATGCACTCCATGAGCAGAGGCTCCAGGCTCAAGAT AAAGGIGGTCIAHGILGGCGICTGGATCCCIGCTCCIGCTGACIATICCCGACITCAI CTTTGCCGACGTCAGCCAGGGGACATCAGGGGGATGACAGGTACATCTGTGACCG CCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCT CTTTGCCAACG------TCAGTGAGGCAGATGACAGATATATCTGTGACCG CTCCAAGGGCCACCAGAAGCGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT 187 IGCTAATTICAATAAAATCTICCTGCCACCATCTACTCCATCATCTTTAACTGGCAT 284 AGTCCGCCAATGCATTCCTGCTCCATCCGTTACCAGAAGAAGCTAAGGAGCATGAC GGACAAGTACAGGCTGCACTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTT CIGGGCAGTIGATGCCATGGCTGACTGCTACTTTGGGAAATTTTGTGTAAGGCTGTCCA credecalcricarioceredecaacregracuriogeaacriccrardcaagecagreda TATCATCTACACTGTCAACCTCTACAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA 584 AAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTCCTCCTGACTACCTGACTTCAT GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 12 GCGGCAGCAGGTAGCAAGTGACGCCGAGGCCCTGAGTGCTCCCAGTAGCCACCGCATCTG 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 72 gagaaccagccarccarccarccar-----ccccarcacrararacacricacaraaacac 164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA GGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTT criciacccaaigacricigesiesirererererererereresererereresere 892 1012 547 607 1004 952 884 344 404 367 464 427 524 487 644 704 652 764 824 224

> 음 장 음

 $\dot{\delta}$ 

8 8 8

β <del>ζ</del>

QΩ

8 8 8

සු ද

8 8

Sequence 75, Application US/10225567A
Sequence 75, Application US/10225567A
Sequence 75, Application US/10225567A
Sequence 76, Sequence 76, Sequence 76, Sequence 76, Sequence 76, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 77, Sequence 1465 9 1423 GIGGCCAAGIICIIAGIAGCIGIIIAAICIGIGIAGACCIGIAGAACTGTAGAAGA 1483 163 126 223 186 283 71 44 GCAGGIGCAGGIAGCAGTGACCCICTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 104 TAGAGCGAGTGTTGCCGATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACT 164 TOAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 127 coaggaaargoocrcagoogacrargacrocargaaggaaccrorriccorgaagaaa CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT 72 gagaaccadchaccardga-----gggarcagrararacacricagaracac GACTTATTTATA----TAAATTTTTTTTTTTCATATTGATGTGTGTCTAGGCAGGACCT 1354 GTGGCCAAGTTCTTAGTTGCTGTTGTCTCGTGGTAGGACTGTAGAA-----AAGGG tattecttettesaterriet-----cttetettretttasttatetesastitaarr 1484 AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT 1406 AACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTT GAACTITITIATGITACACATTITICCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT TTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTGTGAGGTTTGACT 1364 TAATTTATATAAATATTGTTTTTTTTTTTTTTTCATGAGGGGGGCGTCTAGGCAGGACCT Gaps 46; Query Match
50.8%; Score 952.8; DB 15; Length 1679;
Best Local Similarity 80.2%; Pred. No. 5e-209;
Matches 1210; Conservative 0; Mismatches 252; Indels 46; 1466 TATGCATA 1473 1544 GCTGCATA 1551 ; TYPE: DNA; ORGANISM: Homo sapiens US-10-225-567A-75 RESULT 9 US-10-225-567A-75 12 224 1244 1298 1304 1424 1244 음 g ద à ò ò 임 8 8 g 엄 g ò 임 ò à à ò

1184

8 8

4 6 6 6

ò

S Q

상 점

S dd

8 8 8

8 8

197 TOTALATICAMINATION CONCENTRATE CONTINUED IN IN INTERCEDENT TO THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PR	Db 1244 TATTGCTTGTTGGTTTTTTTTTTTTTTTTTTTGGGAGGAGCTTTAATT 1297  Qy 1364 TAATTTATATAAATATTGTTTTGTTTCTTTGTGGATGGGAGGACCT 1423	RESULT 10 US-10-021-660-58 Sequence 58, Application US/10021660 Sequence 58, Application US/10021660 SENERAL INFORMATION: APPLICANT: Murray, Richard APPLICANT: Glynne, Richard APPLICANT: Watson, Suean R. APPLICANT: EOS Biotechnology, Inc. APPLICANT: ROS Biotechnology, Inc. APPLICANT: COMPOSITION: No. US20930152926A1el Methods of Diagnosis of Anglogenesis, TITLE OF INVENTION: Compositions and Methods of Screening for Andiogenesis	INVENTION: Modulators RENCE: 018501-000710US RENCE: 018501-000710US ILING DATE: 2001-12-06 ILICATION NUMBER: US/09/784,356 ING DATE: 2001-02-14 ILICATION NUMBER: US 09/637,977 ING DATE: 2000-08-11		Query Match Best Local S Matches 1210 44 12	104 TAGAGGGGTTACCAIGGAACCAAIGGGATCAGTGTATATACACTTCTAGTACTACTC  72 GAGAACCAGCGGTTACCATGGAGGGGATCAGTATATACACTTCAGATAACTACAC  164 TGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA  127 CGAGGAAATGGGCTCTAGACTATGACTCCAATGAAGGAACCCTGTTTCCGTGAAAAAAAA	OY 224 CGICALINGARISTIC CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CONTROLLY CO
	TGCTAATTICAATAAATCTTCCTGCCCCACCATCTACTCCATCATCTTAACTGGCAT  TGCTGCTAATTICAATAAAATCTTCCTGCCCCCCCCACCATCATCCACACATCATCTTAACTGGCAT  AGTCGGCCATTCGATTGCTCATCTGGTCATGGGTTACCAGAAGAAAGCTAAGTGAC  TGTGGGCAATGGATTGGTCATCGGTCATGGGTTACCAGAAGAAAACTCAAGAAGATGAC  GGACAAGTACCGGCTGCCACTCTCAGTCGTCATGGGTTACCAGAAGAAACTCAAGACATGAC  GGACAAGTACCGGCTGCCACCTCTCAGTGGCCCACCTCTTTGTCATCACACTCCCTT  GGACAAGTACAGGCTGCATGGCTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATCTGGGCAAGTTATTGTGTAAGGCTGTCCATTTGGGCAATTTTTTGTAAGACTGTCCATTTGGGCAATTTTTTTGTAAGACTGTCCATTTGGGCAATTTTTTTT	CCGGTACCTCGCCATTGTCCACCCCCACCAAGGTCAAGGCCAAGGAAACTGCTGGCTG	CCTTTACCCCGATAGCCTGTGGATGTTCAATTCCACATATAATGGGTCT	CTCCAAGGGCCACCAGAAGCGCAAGGCCTCAAGACGACGACGTCATCCTCATCCTAGCTTTTCTCCAAGGCCTCAAGACGCCTCAAGACCACCAGAAGGCCTTAAGACCCACCAGTCATCCTCATCCTGGCTTTTCCTCCTTCATGCTGGCGATCAGCATCGACTCATCCTTTTGGCTTTTGGCTTTTGGCTTTTTGGTTTTATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGTTTTGGCTTTTGGCTTTTTGGTTTTTGGTTTTTT	AGTCATCAAGCAAGGATGTGACTTCGAGGCATTGTGCACAAGTGGATCTCCATCACAGA 1	GITCAAAAGCICTGCCCAGCAIGCACTCCAIGAGCAGAGGCTCCAGCCTCAAGAI 1	TITICACTCCAGCTAACCCTJATGCAAAGACTTATATATATATATATATATATGATAAA  TITICACTCCAGCTAACACATGTAAAAGACTTTTTTITIATACGATAAATA GAACTTTTTTATGTTACACATTTTCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT GAACTTTTTTTATGTTACACATTTTCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT ACTTTTTTTTAATTGACACATTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTTTTT

SULT 10 Sequence 58, Application US/10021660 Sequence 58, Application US/10021660 Publication No. US20030152926A1 GENERAL INFORMATION: GENERAL INFORMATION: APPLICANT: GLYMER GIVENCY Sichard APPLICANT: GLYMER GIVENCY SICHARD APPLICANT: GLYMER GIVENCY SICHARD APPLICANT: GLYMER GIVENCY SICHARD APPLICANT: GLYMER GIVENCY SICHARD APPLICANT: GLYMER GIVENCY SICHARD APPLICANT: TITLE OF INVENTION: COMPOSITIONS MODISCUS TITLE OF INVENTION: CURRENT APPLICATION NUMBER: US/10/021,660 CURRENT APPLICATION NUMBER: US/9/784,356 PRIOR FILING DATE: 2000-08-11 NUMBER OF SEQ ID NOS: 135 SEQ ID NO SES SEQ ID NO SES IENGTH: 1679 TYPE: DNA TYPE: DNA TYPE: DNA TYPE: DNA TYPE: DNA TYPE: DNA TYPE: DNA	Query Match 50.8%; Score 952.8; DB 15; Length 1679; Best Local Similarity 80.2%; Pred. No. 5e-209; Matches 1210; Conservative 0; Mismatches 252; Indels 46; Gaps	44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGGCTG 103	TAGAGGGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACATTCTGATAACTCT TAGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATATA	72 GAGAACCAGCGGTTACCATGGAGGGGATCAGTATATACACTTCAGATAACTACAC 126	TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAA	127 CGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCCTGTTTCCGTGAAGAAAA 186	224 CGICCAITICAAIAGGAICTICCIGCCCACCAICIACIICAICAICTICIIGACIGGCAI 28:	187 IGCTAATTICAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTTAACTGGCAT 246	284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGGTAAGGAGCTAAGGAGCTAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAG	247 IGIGGCCATGGATIGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC 306	344 GGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTT 403	307 GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTTGTCATCACGCTTCCCTT 366
RESULT 10  US-10-021-660-58  Sequence 58, Appl Publication No. U GENERAL INFORMATINA APPLICANT: Wate APPLICANT: Wate APPLICANT: Wate APPLICANT: Wate APPLICANT: Wate APPLICANT: Wate APPLICANT: Wate APPLICANT: Wate APPLICANT: Wate APPLICANT: Wate APPLICANT: Wate APPLICANT: Wate APPLICANT: Wate APPLICANT: CURRENT APPLICATION TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE OF INVENTI TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TIT	Query Match Best Local Matches 121	જ સ		QD	0 <b>y</b> 10	Db 1:	Oy 2:	Ub 1	200	Db 2	δy 3.	Db 3

```
104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72 gagaaccagcggtraccargga-----ggggafcagtalataracartragaraactacac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        127 cgaggaaardggcricaggggacrargacrccargaaggaacccrgrrrccgrgaagaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      187 IGCTAATTTCAATAAATCTTCCTGCCCACCATCTACTCCATCATCATCTTAACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                 1406 AACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAAGGTAGAAATGATCCCCAGCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
1484 AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT
                                                                                                                    RESULT 11
US-10-341-434-177

is Sequence 177, Application US/10341434

is publication No. US20030215835A1

is GENERAL INFORMATION:

if THIE OF INVENTION:

if THIE OF INVENTION:

if THIE OF INVENTION:

if THIE OF INVENTION:

if THIE OF INVENTION:

if THIE OF INVENTION:

if THIE OF INVENTION:

if THIE OF INVENTION:

if THIE OF INVENTION:

if THIE OF INVENTION DATE:

if THIE OF INVENTION NUMBER: US 60/348,119

if THIE OF INVENTION NUMBER: US 60/348,119

if THIE OF INVENTION NUMBER: US 60/348,119

if THIE OF THIE OF SEQ ID NOS: 238

if SEQ ID NO 177

if IRDGTH: 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1679;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
50.8%; Score 952.8; DB 16;
Best Local Similarity 80.2%; Pred. No. 5e-209;
Matches 1210; Conservative 0; Mismatches 252;
                                                                              1466 TAŤĠČÁŤÁ 1473
                                                       1544 GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                            ) NAME/KEY: CDS
; LOCATION: (89)..(1144)
; OTHER INFORMATION:
US-10-341-434-177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
                           g
                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1304 TITITITITITAATIGACIGITGGGAGTITAIGITCCICTAGTITITGTGAGGTTTGACT 1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAA-----AAGGG 1405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1244 rarrecrigiresarrrricr----cricicrirrcriracriricresacriraarr 1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1364 TAATTTATATAAATATTGTTTTTTTTTTTTTCATGTGAATGAGCGTCTAGGCAGGACCT 1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGAACTGTAGAACTGTAGAGGAAGA 1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1072 cererecanadanandendendentententententendendadantendad 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITICACICCAGCIAACACAGAIGIAAAAGACIIITII------IIIAIACGAIAAAIA 1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1298 GACTIATITATA----TAAAITITITITITITICATAITGAIGIGIGICTAGGGAGGACCT 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         951
                                                                                                                                                                                                                                                                                                                  711
                                                                                                                                                                                                                                                                                                                                              823
                                                                                                                                                                                                                                                                                                                                                                                                    883
                                                                                                                                                                                                                                                                                                                                                                                                                               831
                                                                                                                                                                                                                                                                                                                                                                                                                                                         943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    832 criceccierrescriscriacriacarressarcascarceacricerrearceressa 891
                                                                                                                                                    546
                                                                                                                                                                               643
                                                                                                                                                                                                        909
                                                                                                                                                                                                                                    703
                                                                                                                                                                                                                                                              651
                                                                                                                                                                                                                                                                                        763
                                                                                                                                                                                                                                                                                                                                                                        771
                 463
                                        426
                                                                     523
                                                                                              486
                                                                                                                          583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1004 GGCCCTCGCCTTCTCCACTGTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1064 GITCAAAAGCICTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGCATCATCATCTTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTTGCCTGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1244 GAACTITITIATGITACACATITICCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT
                                                                                                                                                                                                                                                                                                                                                               CTTTGCCAACG------TCAGTGAGGCAGATGACAGATATATCTGTGACCG
                                                                                                                                                                                                                                                                                                                  criciaccccaaigacriciggefgerreigiriccagrircagcarcardarigerreger
                                                                                                                                                                                                                                                                                                                                                                                                    TGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGCAGTCAGA
                                                                                                                                        CGGCTACCTGGCCATCGTCCACGCCACCACACAGTCAGGAGGCCAAGGAAGCTGTTGGCTGA
                                                                                                                                                                               AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCGACTATACCTGACTTCAT
                                                                                                                                                                                                       AAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCAT
                                                                                                                                                                                                                                  CTTTGCCGACGTCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                                                                                                                                                                          CCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGTCT
                 CTGGGCAGTTGATGCCATGCCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                     TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                          944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                           884
                                          367
                                                                                              427
                                                                                                                           524
                                                                                                                                                    487
                                                                                                                                                                               584
                                                                                                                                                                                                          547
                                                                                                                                                                                                                                    644
                                                                                                                                                                                                                                                               607
                                                                                                                                                                                                                                                                                           704
                                                                                                                                                                                                                                                                                                                    652
                                                                                                                                                                                                                                                                                                                                               764
                                                                                                                                                                                                                                                                                                                                                                                                     824
                 104
                                                                     464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S B S B S B S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95
95
96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                         8 S
                                                                                                                                                                                                                                                                                                                                                                                         දු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                  6 6 6 6
                                                                                                                                                                     $ B $
                                                                                                                                                                                                                                                        유
상
음
```

. 9 103

Gaps

163 126 223 186 283

71

246 343 403 366 463 426 523 486 583

```
CGGTACCTGGCCATGTCTCTCTCTACAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGA 581
Sequence 20, Application US/09971392

PUBLICANT: POSTORATION:
APPLICANT: Peterson, David P.
APPLICANT: Peterson, Cecelia I.
APPLICANT: Peterson, Cecelia I.
APPLICANT: Cocks, Benjamin G.
TITLE OF INVENTION: REPERENCE: PA-0029 US
CURRENT PILING DATE: 2001-10-03
PRICA REPLICATION NUMBER: US/09/971,392
CURRENT FILING DATE: 2001-10-03
PRICA REPLICATION NUMBER: 60,237,652
NUMBER OF SEQ ID NOS: 260
SOFTWARE: PERL PROGRAM
SOFTWARE: PERL PROGRAM
SOFTWARE: PERL PROGRAM
SOFTWARE: PERL PROGRAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              crimecogacercaeccaesesacarcaecaesesesargacaesesargacae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 107 gagaaccagcigerraccardga-----ggggarcagraracacricagaraacracac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  162 cgaggaarigggcricaggggacrarcarccargaaggaaccccrarriccgrgaagaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 deachachachedechechechereneneeceacenecherrenenearekeerr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAGGCAGTCTATGTGGGGGGTCTGGACCTCCTCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             saz akadgrodrenardringdedrenddaretetretetetretretrakintetetak
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             222 IGCIAATITCAATAAAAICITCCIGCCCACCAICIACICCAICAICTITTAACIGGGAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                284 AGICGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cresscaerreareccerescaaacresracirressaacriccrarecaasecaereca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACGAAGGAACCTTGCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1711;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 952.8; DB 10; Length
Pred. No. 5e-209;
0; Mismatches 252; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCT
                                                                                                                                                                                                                                                                                                                                                                                       other
                                                                                                                                                                                                                                                                                                                                       284616.
                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: misc_feature
OTHER INFORMATION: Template ID:
NAME/KEY: unsure
                                                                                                                                                                                                                                                                                                                                                                                         ຫ້
                                                                                                                                                                                                                                                                                                                                                                                                                                        50.8%;
                                                                                                                                                                                                                                                                                                                                                                                         t, a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                        LOCATION: 1706
; OTHER INFORMATION: a, US-09-971-392-20
                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 1210; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ર્જ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \overset{\circ}{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   심
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTT 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                          1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cererecaaagaaaagagagagacarrearearrearreacreacreagacrereagarereaga 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1184 ACTTITITITAAGITACACATTITICAGATATAAAAGACTGACCAATATTGTACAGITIT 1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Trititititaatigacigitgggagtttaigitccictagttrigigaggttigact 1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAATITATATAAATATIGITITITIGITIGETTCAIGIGAATGAGCGICTAGGCAGGACCT 1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GIGGCCAAGTICTIAGTAGCTGTTATCTGTGTAGGACTGTAGAACTGTAGAAGA 1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1484 AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT 1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTTTCCAAAGGAAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG 1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rrrcacrccadcraacacagargraaaagacrrrrr-----rrraracgaraara 1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                763
                                                                                                                                                                                                         711
                                                                                                                                                                                                                                         823
                                                                                                                                                                                                                                                                          771
                                                                                                                                                                                                                                                                                                           883
                                                                                                                                                                                                                                                                                                                                          831
                                                                                                                                                                                                                                                                                                                                                                           CTTTGCCTGCTGCCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGG 943
                                                                                                                                                                                                                                                                                                                                                                                                         891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         951
                                                                          909
                                                                                                           703
             187 CCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCCAAGGAAGCTGTTGGCTGA 546
                                                                                                                                         651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACTTATTTATA----TARATTTTTTTTTTTCATATTGATGTGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gregoccaagricitagrigoriciarcrosocaagragaacroradaa-----aaged
                                                                                                                                                                                                                                                                                                                                                                                             CTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATCATCAACCAAGGGTGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GITCAAAAGCICTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGAT
                                                                                                                                                                                                  712 marccheccreenariencarccreercrecrariecarmarcarcrecaaecrereae
                                                                                                                                                                                                                                                                                                           CTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCCATCACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCCCTCGCCTTCCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAACTTTTTTATGTTACACATTTTCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1244 TATTGCTTGTTGGATTTTTGT-----CTTGTGTTTTTTAGTTTTTGTGAAGTTTAATT
                                                                            547 AAAGGIGGICIAIGIIGGCGICIGGAICCCIGCCICCIGCIGACIAIICCCGACIICAI
                                                                                                           CITTGCCGACGTCAGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                         crirideceace------reacteacecacaracacararararetrance
                                                                                                                                                                            CCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCT
                                                                                                                                                                                                                                          CATCCTGCCCGGCATCGTCATCCTCTGTTACTGCATCATCATCTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                          crecaagegecaccageaagegecaagecercaagaccacagagacarecagecrrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1466 TATGCATA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1406
                                                                                                                                                                                                                                                                                                                                          772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1544
                                                                                                                                            607
                                                                                                                                                                                                                                            764
                                                                                                                                                                                                                                                                                                                                                                             884
                                                                                                                                                                                                                                                                                                                                                                                                                                             944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           892
                                              584
                                                                                                               644
                                                                                                                                                                              704
                                                                                                                                                                                                           652
                                                                                                                                                                                                                                                                                                             824
                                                                                                                                                                                                                                                                                                                                                                                                            832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95 du
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                     Op
                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                             ò
                                                                          g
                                                                                                                                       g
                                                                                                                                                                                                    g
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                           ò
                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                             ò
```

Gaps

46;

103

106 163 161 223 221 283 403 401 463 461 523 521 583 989

642

RESULT 12 US-09-971-392-20

Ġ

```
PRIOR APPLICATION NUMBER: 60/276,947
PRIOR FILING DATE: 2001-03-20
NUMBER OF SEQ ID NOS: 805
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 459
LENGTH: 1711
                                                                                                                                            50.8%;
                                                                                                     ; LOCATION: (1706) _
; OTHER INFORMATION: a, t, c,
US-10-101-510-459
                                                                                                                                            Query Match
Best Local Similarity 80.2
Matches 1210, Conservative
                                                                                          NAME/KEY: modified_base
                                                               TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           807
                                                                                                                                                                                                                                                                                                                                222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        824
                                                                                                                                                                                                        47
                                                                                                                                                                                                                                                                    164
                                                                                                                                                                                                                                                                                                           224
                                                                                                                                                                                                                                                                                                                                                                      282
                                                                                                                                                                                                                                                                                                                                                                                                                                  404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          464
                                                                                   FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                            상염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         상
임
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                      à
                                                                                                                                                                                                   g
                                                                                                                                                                                                                            \stackrel{>}{\circ}
                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                  \dot{\circ}
                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1543
                                                                                                                                                                                                                                                          1123
                                                                                                                                                                                                                                                                               1106
                                                                                                                                                                                                                                                                                                   1183
                                                                                                                                                                                                                                                                                                                       1166
                                                                                                                                                                                                                                                                                                                                           1243
                                                                                                                                                                                                                                                                                                                                                                                  1303
                                                                                                                                                                                                                                                                                                                                                                                                      1278
                                                                                                                                                                                                                                                                                                                                                                                                                          1363
                                                                                                                                                                                                                                                                                                                                                                                                                                              1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA 1003
                                                                                                                                                                                                                   1063
                                                                                                                                                                                                                                        1046
                                                                                                                                                                                                                                                                                                                                                              1167 TITICACTCCAGCTAACACAGATGTAAAAGACTTTTT-----TTTATACGATAAATA 1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GIGGCCAAGITCITAGIAGCIGITIAICIGIGIAGGACTGIAGAACIGIAGAGAAGA 1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            943
                                                                                                                                                                                               986
                                                                                                                                                        926
                                                                          806
                                                                                            883
                                                                                                                 866
                                                      823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AACTGAACATTCCAGAATGTGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT
                                                                                                                                                                                                                                                                                                                 CCTCTCCAAAGGAAAGGGAGGTGGACATTCATCTGTTTCCACTGAGTCTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                 1244 GAACTITITIATGITACACATTITCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                    <u>ACTITITITAAGTTACACATTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTT</u>
                                                                                                                                      CTTTGCCTGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCTTTTGGG
                                                                                                                                                                                              AATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACGA
                                                                                                                                                                                                                   GGCCCTCGCCTTCCTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA
                                                                                                                                                                                                                               987 GGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAA
                                                                                                                                                                                                                                                          GTTCAAAAGGTCTGCGCGAGCATGCACTCAACTCCATGAGCAGAGGCTCCAAGGAT
                                                                                                                                                                                                                                                                       CCTTTCCAAAGGAAAAGCGGGGGGGGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG
                                                                                                                                                                                                                                                                                                                                          TTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                      TAATTTATATAAATATTGTTTTGTTTTCATGTGAATGAGCGTCTAGGCAGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACTTATTATA - - - - TAAATTTTTTTTTTTCATATTGATGTGTGTGTGGGGGGGCCT
                                                                                                                                                 147 TAICTGCCTGGTATTGTCATCCTGTCTATTGCATTATCATCTCCAAGCTGTCACA
                                                                                              CTCCAAGGGCCACCAGAAGCGCCAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT
                                                                                                        CTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTT
                CCTTTACCCCGATAGCCTGTGGTGGTGTTTCCAATTCCAGCATATAATGGTGGGTCT
                                 criciaceceaaigaetrieidegregriefrirecaetriedecaetriegriegeer
                                                       CATCCTGCCCGGCATCGTCATCCTCTGTTACTGCATCATCATCTTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 459, Application US/10101510
Publication No. US20030148295A1
GENERAL INFORMATION:
APPLICANT: WANG, VIXIN
APPLICANT: WANG, YIXIN
TITLE OF INVENTION: EXPRESSION PROFILES AND METHODS OF USE
FILE REPERENCE: 15117.0012
CURRENT APPLICATION NUMBER: US/10/101,510
CURRENT FILING DATE: 2002-03-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TATGCATA 1508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 13
US-10-101-510-459
; Sequence 459, App
; Publication No. U
; GENERAL INFORMATI
                                                                                                                                                                                                                                                                                                                       1107
                                                                                                                                                                                                                                                                                                                                                                                                        1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1484
                                                                                                                                                                                                                                                                                                                                            1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1501
                                                                                                                                                                                                                                                                                                                                                                                                                            1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1441
                                                                                                                                                                                                                                                                                                       1124
                 704
                                   687
                                                        764
                                                                                               824
                                                                                                                   807
                                                                                                                                        884
                                                                                                                                                          867
                                                                                                                                                                               944
                                                                                                                                                                                                 927
                                                                                                                                                                                                                      1004
                                                                                                                                                                                                                                                               1064
                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 &
                                                                                                                                                                                                                                    6 6 B
                                                                                                                                                                                                                                                                                                                                                            S B
                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                               8 8 8
                                                                                                             8 6 8
                                                                                                                                                                            ò
                                                                                                                                                                                            8 8
                 ò
                              d
G
                                                       8 8
                                                                                       à
```

```
866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              806
                                                                                                                                    106
                                                                                                                                                                  163
                                                                                                                                                                                                  161
                                                                                                                                                                                                                               223
                                                                                                                                                                                                                                                             221
                                                                                                                                                                                                                                                                                               283
                                                                                                                                                                                                                                                                                                                           281
                                                                                                                                                                                                                                                                                                                                                          343
                                                                                                                                                                                                                                                                                                                                                                                        341
                                                                                                                                                                                                                                                                                                                                                                                                                      403
                                                                                                                                                                                                                                                                                                                                                                                                                                                    401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTTGCCGACGTCAGCCAGGGGACATCAGGGGGGATGACAGGTACATCTGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCCAAGGGCCACCAGGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                        107 GAGAACCAGGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC
                                                                                                                                                                                                                                                     162 CGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTCCGTGAAGAAAA
                                                                                                                                                                                                                                                                                             CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTTGACTAGCAT
                                                                                                                                                                                                                                                                                                                       284 AGICGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                     462 IGICATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGGGAGTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ssz aaaderochtharerrecerchedarecerecerectecheratrecedaerretrear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ccittacccccanadecrereseargereserreraricaarriaargereserer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cricialececaaraacrididegigirgirgirecagrifeacrateargerideeer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATCCTGCCGGGCATGTCATCTCTCTGTTACTGCATCATCATCATCTTAAGCTGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    747 TAICCIGCCIGGIAIIGICAICCIGICTICCIAITHCAITAICAICTCAAGCHGAACCHCACA
                                                                                                      44 GCAGGTGCAGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                   TGAAGAAGTGGGGGTCTGGAACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                          Gaps
                                                                          46;
                                           Length 1711;
                                                                          Indels
                                           Score 952.8; DB 15;
Pred. No. 5e-209;
0; Mismatches 252;
g, other or unknown
```

```
225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                 GGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAA 1063
                                                                                                                                                                987 GGCCTAGCTTTCTTCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAA 1046
                                                                                                                                                                                                                        1047 ATTTAAAACCTCTGCCCAGCACGCACTCACCTCTGTGAGGCAGAGGGTCCAGCCTCAAGAT 1106
                                                                                                                                                                                                                                                                      CCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAG 1183
                                                                                                                                                                                                                                                                                                     ccrcrccaaaccaaaccarccarcrcrcrcrrccacrcaacrccacrcaacrcrcaacrcrcaac 1166
                                                                                                                                                                                                                                                                                                                                                                        TTTTCACTCCAGCTAACACACAGATGTAAAGACTTTTT-----TTTATACGATAAATA 1218
                                                                                                                                                                                                                                                                                                                                                                                                                                       1219 ACTITITITAAGITACACATTITICAGATATAAAAGACTGACCAATATIGIACAGITIT 1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITITITITITAATIGACIGITGGGAGTITAIGITCCICTAGITITGIGAGGITTGACT 1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1333 GACTTATTTATA----TAAATTTTTTTTTTTTTCATATTGATGTGTGTCTAGGCAGGACCT 1388
                                                              944 AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA 1003
                                                                                                                                                                                                   1064 GITCAAAAGCICIGCCCAGCAIGCACICCAACICCAIGAGCAGAGGCICCAGCCICAAGAI 1123
                                                                                                                                                                                                                                                                                                                                       1244 GAACTITITIATGITACACATTITCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT 1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1279 TATTGCTTGTTGGATTTTTGT-----CTTGTGTTTTCTTTAGTTTTTGTGAGTTTAATT 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1364 TAATITATATAAATATIGITITITIGITITCATGIGAATGAGCGTCTAGGCAGGACCT 1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1389 Greeceascrictracrictraterereceraciases en 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1441 AACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTT 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGACTGTAGAACTGTAGAGAAGA 1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1484 AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT 1543
                    CITCGCCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTCGA 926
                                                                                              927 AATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACGA 986
CITTGCCTGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGG 943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Cocks, Benjamin G.
Susan G. Stuart
Susan G. Stuart
Jeffrey J. Selhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL
GENE EXPRESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPPERATUR SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSER: INCYTE PHARMACEUTICALS, INC.
STREET: 3174 PORTER DRIVE
CITY: PALO ALTO
STATE: CALIFORNIA
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Sequence 1213, Application US/10641643; Publication No. US20040077003A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1501 TATGCATA 1508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1544 GCTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-641-643-1213
                                                                                                                                                                                                                                                                                                     1107
                                                                                                                                                                                                                                                                                                                                                                        1167
                                                                                                                                 1004
                                                                                                                                                                                                                                                                    1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
                                                     જે
                                                                                                                                                                                                ò
                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                          ∂
                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                      8 6
                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
```

```
45 CAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGT 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               105 AGAGCGAGTGTTGCCATGGAACCGATCAGTGTGTATATACACTTCTGATACTACTTCT 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 AGAACCAGCGGTTACCATGGA----GGGGATCAGTATATACACTTCAGATAACTACACC 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 165 GAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGAACCCTGCTTCCGGGATGAAAAC 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       116 GAGGAAATGGGCTCAGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAT 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATA 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               296 GACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTTGTCATCACGCTTCCCTTC 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        405 TGGCCAGTTGATGCCATGGCTGACTGGTACTTTGGGGAAATTTTTGTGTAAGGCTGTCCAT 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   476 cecraccreeccarcerceccaccaacaercaageccaageagecreaages
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               465 ATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGAC 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    416 GTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGAC 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     585 AAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATC 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITICCCGACGTCAGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGC 704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             596 TTTGCCAACG-------TCAGTGAGGCAGATGACAGATATATCTGTGACCGC 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CGCCAGCAGCAGCAAAGTGACGCCGAGGCCCTGAGTGCTCCAGTAGCCACCGCATCTGG 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     176 GCTAATTICAATAAAATCTICCIGCCCACCATCTACTCCATCATCTTCTTAACTGGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       285 GTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGCTAAGGAGCATGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            236 Gradecarregarregrearceregrearegerraceasaagaaacreagaageargaeg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 356 TGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 50.7%; Score 951.8; DB 17; Length 1664; Best Local Similarity 80.2%; Pred. No. 8.4e-209; Matches 1209; Conservative 0; Mismatches 252; Indels 46; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  536 AAGGIGICIAIGIIGGCGICIGGAICCCIGCCCICCIGCIGACIAITCCCGACITCAIC
                                                                                                                              PRIOR APPLICATION: CULLIUMINA
PRIOR APPLICATION DATA:
APPLICATION NUMBER: «Unknown»
FILING DATE: «Unknown»
FILING DATE: «Unknown»
ATTORNEY, AGENT INFORMATION:
NAME: Zeller, Karen J.
REFERENCE/DOCKET NUMBER: 37,071
REFERENCE/DOCKET NUMBER: 94,0001 US
TELEPHONE: (650) 855-0555
TELEPHONE: (650) 855-0555
TELEPHONE: (650) 845-4166
INFORMATION: POR SEQ ID NO: 1213:
SEQUENCE CHARACTERISTICS:
LENGTH: 164 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLONE: 9219868
; SEQUENCE DESCRIPTION: SEQ ID NO: 1213 :
US-10-641-643-1213
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/641,643
FILING DATE: 14. Aug-2003
CLASSIFICATION: <UNKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IMMEDIATE SOURCE:
LIBRARY: GENBANK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
```

```
1004
                                                                                                                                                                                                                                                                                                                            1064
                                                                                                                                                                                                                                                                                                                                                        941 GCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTTGGAGCCAAA 1000
                                                                                                                                                                                                                                                                                                                                                                                             1124
                                                                                                                                                                                                                                                                                                                                                                                                                             1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTTCCAAAGGAAAGCGGGGGGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGT 1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTTCACTCCAGCTAACACAGATGTAAAAGACTTTTT-----TTTATACGATAAATAA 1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITITITITITAATIGACTGITGGGAGTTTATGITCCTCTAGTTTTTGTGAGGTTTGACTT 1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1233 ATGCTIGTIGATITITGT-----CTIGIGITICTITAGITITIGAAGITIAAATIG 1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1365 AATTTATATAAATATTGTTTTGTTTGTTTCATGTGAATGAGGGTCTAGGGAGGACCTG 1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTIATITATA ---- TARATITITITITITICATATITATIGICA GICAGGACCTIG 1342
                                                                                                                                                                                                                                                                                             940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGCCAAGTICTTAGTAGCTGTTATCTGTGTAGGACTGTAGAACTGTAGAGGAAGAA 1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1343 TGGCCAAGTTCTTAGTTGCTGTTGTCTCGTGGTAGGACTGTAGAA-----AAGGGA 1394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1395 ACTGAACATICCAGAGGGTGGTAGTTAATCACGTAAAGCTAGAAATGATCCCCAGCTGTIT 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTG 1544
                                 700
                                                                  824
                                                                                                760
                                                                                                                                 884
                                                                                                                                                               820
                                                                                                                                                                                                  944
                                                                                                                                                                                                                              880
                                                                                  821 TTGGCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCTCTCTTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                             1001 TITAAAACTCTGGCCAGGCACGCACTCACCTCTGTGAGCAGAGGGTCCAGCCTCAAGATC
CITTACCCCGATAGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTC
               641 TICTACCCCAATGACTTGTGGGTGGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTT
                                                             AICCIGCCGGCAICGICAICCICCICICIACIGCAICAICAICICAAGCIGICACAC
                                                                                                                              825 TCCAAGGCCACCAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTC
                                                                                                                                                          761 recaadedecaceadadedecadadecercadadeceacacacearecrearecredecerric
                                                                                                                                                                                             TITGCCTGCTGCCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGA
                                                                                                                                                                                                                                                            945 GICATCAAGCAAGGAIGIGACITCGAGAGTATGTGCACAAGTGGATCTCCATCACAGAG
                                                                                                                                                                                                                                                                                  881 ATCATCAAGCAAGGGGGTGTGAGTTTGAGAACACTGTGCACAAGGGGATTTCCATCACCGAG
                                                                                                                                                                                                                                                                                                                         1005 GCCCTCGTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                           TICAAAAGCICIGCCCAGCAIGCACICAACICCAIGAGCAGAGGCICCAGCCICAAGAIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1061 CTCTCCAAAGGAAAGCGAGGTGGACATTCATCTTTTCCACTGAGTCTGAGTCTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1245 AACTITITATGTTACACATTTTCCAGATATAAAGAGACTGACCAGTCTTGTACAGTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1173 CTTTTTTTAAGTTACACATTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1545 CTGCATA 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGCATA 1461
                                                                                                                                                                                             885
705
                                                             292
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1485
                                                                                                                                                                                                                                                                                                                                                                                           1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1455
                 g
                                                    à
                                                                                     셤
                                                                                                                                                    q
                                                                                                                                                                                           \dot{\delta}
                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                     \dot{\delta}
                                                                                                                                                                                                                                                                                 P
                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

```
Sequence 2143, Application US/09880107
Patent No. US20020142981A1
GENERAL INFORMATION:
APPLICANT: Horne, Darci T.
APPLICANT: Scherf, Uwe
APPLICANT: Gene Logic, Inc.
TILLE OF INVENTION: Gene Expression Profiles in Liver Cancer
FILE REFERENCE: 44921-5028-WO
US-09-880-107-2143
```

```
10;
                                                                                                                                                                                                                                                                                                                                                                             66 CTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGCGAGTGTTGCCATGGAA 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  245
                                                                                                                                                                                                                                                                                                                                                                                                                                                     126 CCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGAC 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 433 TACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCAC 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGATCCCTGCCTCCTGCTGATTCCCGACTTCATCTTTGCCAACG------601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     725
                                                                                                                                                                                                                                                                                                                                                                                                                   77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            606 TGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCCAGGGG 665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             602 ----TCAGIGAGGCAGAIGACAGATATATCIGIGACCGCTICTACCCCAAIGACITGIGG 657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             726 ATGGTGGTGTTTCAATTCCAGCATATAATGGTGGTCTCATCCTGCCCGGCATCGTCATC 785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   786 CTCTCCTGTTACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGC 845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          718 CTGTCCTGCTATTGCATTATCATCTCCAAGCTGTCACCTCCAAGGGCCACCAGAAGCGC 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18 CGCCGAGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAACCAGCGGTTACCATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       253 CTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGGACAAGGACAAGTACAGGCTGCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rcadradocadorcontrarontadocorrocorrosedos agradas de consegos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  133 TATGACTCCATGAAGGAACCTGTTTCCGTGAAGAAATGCTAATTTCAATAAATCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      246 CIGCCCACCATCTACTICATCATCTTGACTGGCATAGTCGGCAATGGATTGGTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CIGCCCACCATCTACTCCATCATCTTCTTAACTGGGCATTGTGGGCCAATGGATTGGTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCACCAACAGTCAGAGGCCAAGGAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ---- GGGGATCÁGTATATACACTTCAGÁTAACTACACCGAGGAAATGGGCTCAGGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCAGTGGCTGACCTCCTCTTTGTCATCACTCCCCTTCTGGGCAGTTGATGCCATGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  426 GACTGGTACTTTGGGAAATTTTTGTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     666 GACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCCGATAGCCTGTGG
                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                        Indels 133;
                                                                                                                                                                                                                                             ; OTHER INFORMATION: Genbank Accession No. US20020142981A1 L06797 US-09-880-107-2143
                                                                                                                                                                                                                                                                                                      Length 1670;
                                                                                                                                                                                                                                                                                                  Query Match 50.3%; Score 944.8; DB 9; Best Local Similarity 75.9%; Pred. No. 3.5e-207; Matches 1356; Conservative 0; Mismatches 297;
CURRENT APPLICATION NUMBER: US/09/880,107
CURRENT FILING DAFF: 2001-06-14
PRIOR APPLICATION NUMBER: US 60/211,379
PRIOR FILING DATE: 2000-06-14
PRIOR PPLICATION NUMBER: US 60/237,054
PRIOR APPLICATION NUMBER: US 60/237,054
NUMBER OF SEQ ID NOS: 3950
SOFTWARE: PREENTIN Ver. 2.1
LENGTH: 1670
                                                                                                                                                                                       TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                553
                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         dd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ठे
```

778 AAGGCCTCAAGACCACAGTCATCCTCGGGTTTCTTCGCCTGTTGGCTGCCTAC 837	96	838 TACATressarcascarcascrecertearecressaarcarcaasaasasasasas	0	957	1026 IGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCAT 1085	TGTCTGAACCCCATCCTCTATGCTTTGGAGCCAAATTAAAACCTCTGGCCCAGCAC	1086 GCACTCAACTCCATGAGCAGAGGCTCCAGCTCAAAATCTTTCCAAAGGAAAGGGGGT 1145 1018 GCACTCAACTCTGTGAACGAAAGGGTCCAAGGATCGTCTCCAAAGGAAAGGAAAGGGTCAAAGGAAAGGAAAGGAAAGGAAAGGAAAGGAAAGGAAAGGAAAA	6 GGACACHCTTCCGTCTCCAGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTA 1	1078 GGACATTCATCTGTTTCCACTGAGTCTGAGTTTTCAGTTTTCACTCCAGCTAA 1131	1206 IGCAAAGACTTATATATATATATATATATAAAGAACTTTTTTATGTTACACATT 1265	1132CACAGATGTAAGAGACTTTTTTTTTATACGATAAATAACTTTTTTTT	1266 TICCAGATATAAAGAGACTGACCAGTCTTGTACAGTTTTTTTT	1190 TITCAGATATAAAAGACTGACCAATATTGTACAGTITTTATIGCTIGITGGATITT 1245	1326 GGGAGTITAIGITCCICTAGIITTIGIGAGGIITGACITAAITIAIATAAATAITGITT 1385	1246 TGCTCTTGTGTTTTCTTTAGTTTTTCGTGAAGGTTTAATTGACTTATTTAT	₹"	1303 TITTITGITICATATIGATGIGICTAGGCAGGACCIGIGGCCAAGTICTIAGITGCIG 1362	1446 ITTATCTGTGTGTAGACTGTAGAACTGTAGAGGAAGAACTGAACATTCCAGAATGTGT 1505	1363 TATGICTCGTGGTAGACTGTAGAAAAGGGAACTGAACATTCAGAGCGTGT 1414	6 GGIAAATIGAAIAAAGCIAGCCGIGAICCICAGCIGITGCIGCAIAAICTCTICAITCCG 156	1415 AGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTTTATGCATAGATAATCTCTCCCA- 1473	1566 AGGAGCACCCCACCCCCACCCCCACCCCCATCTTAAATTGTTTGGTTATGCTGT 1625	1474 1473	1626 GTGATGGTTTGGGTTTTTTTTTTGTTGTTGTTGTTTTTTT	1474TICCCGTGGAACGTTTTTCCTGTTCTTAAGACGTGATTTTGCTGTAGAAGATG 1526	1686 GCACTTAAAACCAAAACCTGAAATGGTGGAAATGCTGGGGGTTTTTTTT	1527 GCACTTATAACCAAAGCCCCAAAGTGGT-ATAGAAATGCTGG	1746 TITITICAGTITICAAGAGTAGATIGACTICAGTCCCTACAAATGTACAGTCTTGTATTA 1805	1567 -TITITCAGITTTCAGGAGTGGGTTGATTTCAGCACCTAC-AGTGTACAGTCTTGTATTA 1624	1806 CATTGTTAATAAAAGTCAATGATAAAAAAAAAAAAAAAA	1625 AGTICITAATAAAGTACATGTTAAACTTAAAAAAAAAAAA
qq	ò	ОР	δ	Dβ	8 8	g a	8 8	}	Z qq	λO	qq	ζŏ	qq	٥'n	qq	οχ	οg	ò	qq	λŏ	Dp	δý	DÞ	ò	අධ	λ̈́	QQ	٥'n	QQ	δÿ	qa

Search completed: May 17, 2004, 22:14:00 Job time : 934.766 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

May 17, 2004, 05:50:31 ; Search time 5417.72 Seconds (without alignments) 10345.919 Million cell updates/sec Run on:

sw model

- nucleic search, using

OM nucleic

score: Title: Perfect

Sequence:

27513289 seqs, 14931090276 residues IDENTITY\_NUC Gapop 10.0 , Gapext 1.0 Scoring table: Searched:

55026578 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

EST:\* Database

2: em\_esthum: \*
3: em\_estin: \*
4: em\_estov: \*
6: em\_estov: \*
7: em\_estro: \*
8: em\_htc: \* em estba:\*

gb\_est1:\*
gb\_htc:\*
gb\_est3:\*
gb\_est4:\*
gb\_est4:\*
gb\_est4:\*
em\_est5:\*
em\_est5:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_gss\_hum:\*
em\_g 

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description		BU523025 AGENCOURT	BX397685 BX397685	BX421287 BX421287	BX396365 BX396365
	Ę		BU523025	BX397685	BX421287	BX396365
		;	13	13	13	13
	Query Match Length DB	5	906	1091		
ф	Query		39.8	38.4	37.7	37.6
	2	- 1	747.8	720.4	707	705.6
	Result		н	7	,e	4

151	334	325	525	262	853	441	218	27C	049	247	563	133	325	222	33	386	466	861	795	075	322	596	921	084	980	736	204	425	CD466324 LeukoN2_3	768	166	834	114	703	335	615	645	74.	19	13
2151	5834	BX353253	1525	5262	53	41	18	182270	4	X36247	63	33	25	22	33	86	99	61	95	79	22	69	21	84	80	36	0.4	25	CD466324	68	99.	334	14	703	335	115	45	147	97	95
13	13	ť.	17	13	13	12	13	σ	σı	13	12	14	13	12	13	12	12	13	10	10	13	13	14	14	12	12	12	14	14	13	12	13	13	12	12	12	13	10	12	10
20	20		05	20	20	95		79																		76			749				20							
,				ທ	4	ω.	m.	۳.	m	٠ س	ď	ď	ä	급.	Ξ.	Ή.	ö	ö		ö	ö	0	0	6	6	o.	6	6	29.3	e.	9	ω.	8	œ.	ω,	۲.	۲.	۲.	7.	7.
-	70	m	84.	60	7 4	31.	26.	21,	21.	21	0		99.	59		53	78.	76.		57		57	99		55	52.	51.	20	549.6	54	47.	39.	32.	24.	24.		19.	11.	90	0
ın	ı va		· on	) O	10	11	12	13	41	15	917	17	18	19	50	21	22	23	24	25	26	27	28	50	30	31	8	(A)	34	35	36	m	38	39	40	41	42	43	44	45

## ALIGNMENTS

EST.

Mus musculus (house mouse)

Mus musculus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Eukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.

1 (bases 1 to 906)

In (bases 1 to 906)

National Institutes of Health, Mammalian Gene Collection (MGC)

National Institutes of Health, Mammalian Gene Collection (MGC)

Contact: Robert Strausberg, Ph.D.

Email: ogaphs-rémail.nih.gov

Tissue Procurement: The Cepko Laboratory

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LINL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/LiNL at:

http://image.llnl.gov. c column: 07

High quality sequence stop: 668. BU523025 906 bp mRNA linear EST 13-SEP-2002 AGENCOURT 10154335 NCI CGAP CO24 Mus musculus cDNA clone IMAGE:6529663 5', mRNA-sequence. BU523025.1 GI:22833475 BU523025 RESULT 1 BUS23025 LOCUS DEFINITION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL COMMENT ACCESSION

TGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAG 337 GCCCGGGCAGGTGCAGTAGCAGTGACCCTCTGAGGCGTTTGGTGGTCCGGTAACCACCA Contact: Genoscope EST 278 338 38 158 153 38 98 98 775 ACCESSION VERSION KEYWORDS SOURCE ORGANISM DEFINITION REFERENCE AUTHORS TITLE JOURNAL RESULT 2 BX397685 LOCUS Q ద a qq 셤 8 6 ò ò 8 ò 유 1. 906
/organism="Mus musculus"
/mol\_type="mgNA"
/mol\_type="mgNA"
/strain="FVB/N"
/db\_xref="taxon:10090"
/clone="IMAGE:6529663"
/lab\_hose="IMAGE:6529663"
/lab\_hose="IMAGE:6529663"
/lab\_hose="IMAGE:6529663"
/lab\_hose="Olon; Vector: pCMV-SPORT6; Site\_1: NotI;
/note="Organ: colon; Vector: pCMV-SPORT6; Site\_1: NotI;
/note="organ: colon; Vector: pCMV-SPORT6; Site\_1: NotI;
/note="organ: colon; Vector: pCMV-SPORT6; Site\_1: NotI;
/note=ge insert size 1.6 kb. Constructed by Life
/note: Technologies. Note: this is a NCI\_CGAP Library." ų. 411 471 414 531 591 534 651 TCTATGTGGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCG 594 ACGICAGCCAGGGGACAICAGGGGGATGACAGGTACAICTGTGACCGCCTTTACC 711 CCGATAGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGT-GGGTCTCATCCTG 770 CCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGGTCTCATCCTG 714 CCGGGCATCGTCATCTCTCTGTTACTGCATCATCATCTCTAAGCTGTCACTCCACAG 830 CCCGGCATCGTCATCCTCTCTCTTACTGCATCATCTTCTAAGCTGTCACACTCCAAG 774 291 294 354 111 61 GTGTTGCCATGGAACCGATC-----AGTATATACACTTCTGATAACTACTCTGAAGAAG 114 TGGGGTCTGGAGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATT 231 351 GIGITGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAG 171 Archacachdacccrcraagecerragecrcceraaccaccacacacara TIGATGCCATGGCTGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCT ACACTGTCAACCTCTACAGCGTCTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACC TCGCCATTGTCCACGCCACCACCACCAAGGCCAAGGAAACTGCTGCTGCAAAAAGGCAG TCTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCG TCAATAGGATCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGGCA 292 ATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGT ACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAG TIGATGCCATGGCTGCTACTTTGGGAAATTTTTTGTGTAAGGCTGTCCATATCATCT AGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGCGA Gaps 10; h Similarity 97.3%; Score 747.8; DB 13; Length 906; Similarity 97.3%; Pred. No. 1.9e-76; 95; Conservative 0; Mismatches 12; Indels 10; location/Qualifiers Query Match Best Local Simil Matches 795; ( 352 295 412 355 472 415 532 475 535 652 595 712 655 771 715 831 232 592 52 112 172 FEATURES ORIGIN g 8 8 8 8 8 8 8 6 B 6 d

811 GGGCCACCCAGAAACGCCAGGCCCCTCAAGACGACAG

1. .1091
| v. reconstructions of the property of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of the promote of th BX397685 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens CDNA clone CSODIO41YO13 5-PRIME, mRNA sequence.

BX397685 GI:30621359 Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
Bmail: seqref@genoscope.cns.fr, web: www.genoscope.cns.fr
Invitrogen. This sequence belongs to sequence cluster 1272.r For nore information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODIO41AH07QPI&cluster=1272.r. Contact :
Feng liang Email : fliang@lifetech.com VBL :
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODIO41AH07QPI.

> a ò d

g S ò

8 8

Gaps 21; Query Match

38.4%; Score 720.4; DB 13; Length 1091;
Best Local Similarity 82.1%; Pred. No. 2.1e-73;
Matches 881; Conservative 2; Mismatches 169; Indels 21;

397 CATGACGGACAAGTACCGGCTGCACCTGTGGCTGACCTCCTCTTTGTCATCACACT

393 ICCCITCIGGGCAGITGAIGCGIGGCAACIGGTACITTGGGAACITCCIAIGCAAGGC

CCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTT

398

CD

458

8 8

518 513 578 573 638

8 8 8

453 AGTCCATGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAG

TGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAG

457

cgi-bin/cluster.cgi?eeq=CSODG004AD05GPl&cluster=1272.r. Contact:
 Reng Liang Email: fliang@lifetech.com URL:
 Reng Liang Email: fliang@lifetech.com URL:
 http://fullengpth.introgen.com/ InvitroGen Corporation 1600
 Faraday Avenue Genoscope sequence ID: CSODG004AD05GPl.
 Location/Qualifiers
 Location/Qualifiers
 Location/Qualifiers
 Location/Qualifiers
 Location-Qualifiers
 Location-Qualifiers
 Location-Qualifiers
 Location-Qualifiers
 Location-Gualifiers
 Mol\_type="Homo sapiens"
 //db\_xref="taxang.sgc6"
 //clone="CSOGG004YG09"
 //tissue\_type="B CELLS (RAMOS CELL LINE)"
 //clone="CSOGG004YG09"
 //clone="CSOGG004YG09"
 //clone="Type="B CELLS (RAMOS CELL LINE)"
 //clone="Vector: pCMVSPORT 6; lst strand cDNA was prime end enriched,
 //double-strand cDNA was digested with Not I and cloned into
 the Not I and Econy sites of the pCMVSPORT 6 vector:
 Library was not normalized." FEATURES

> 572 637 632

CTICATCTTTGCCGACGTCAGCCGAGGGGACATCAGTCAGGGGGATGACAGGTACATCTG cricarcitrisceaacsicasasa-------neseasatsacasararicis TGACCGCCTTTACCCCCGATAGCCTGTGGATGGTGGTGTTTCCAATTCCAGCATATAATGGT 

633

g à

엄상

698

g ò

CCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGGTCAAAGGCCCAAGGAAACTGCT

ORIGIN

ņ 109 Gaps 28; Query Match
37.7%; Score 707; DB 13; Length 1
Best Local Similarity 75.0%; Pred. No. 6.7e-72;
Matches 898; Conservative 43; Mismatches 228; Indels

GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 50

> 8 임

> > 798 877 858 935 918 995 978

758 GGGTCTCATCCTCCCCGCATCGTCTCTCTGTTACTGCATCATCATCTCTAAGCT 739 IGGCCTTAICCIGCCIGGTAINGICAICCIGICTGIATHGCATAICAICAAGCT

229 146 92 170 g ò g ઠે

266 349 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 207 290 원 장 ò

ATCACAGAGGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTC 1055

GGGGCCAAGTTCAAAAGCTCTGCCCACATGCACTCAACTCCATGAGCAGAGG 1108

1056

1039

-AGCTTTCTTTGCCTGCT-GGCTGCCATATTATGTGGGGATCAGCATCGACTCCATC

878

936 919 966 979

CTTTTGGGAGTCATCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCC CICCIGGAAAICAICAAGCAAGGGIGIGAGAITIGAGAACACIGIGCACAAGGGGAITITCC

GTCACACTCCAAGGGCCCACCAGAGGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCT

818

임 à g ò 염 ò ద 5 g à a

409 267 CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGACAA 350 gracegeorgeacererenes es es es estados es estados es estados es estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados estados es 327 g ò a

326

386

529 469 446 ò g

CTACACTGTCAACCTCTACAGCAGCGTTCTCCTGGCCTTCATCAGCCTGGACCGGTA 447 CTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACGCTA 470 à 셤

506 589 566 649 626 709 671 769 731 829

CCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGT 530 507 ò g

sez edicialdindecalcidaniccinaciciaciacidacianiccadaricarcinis 590 AGICTATGIGGGGGTCTGGATCCCAGCCCTCCTCGACTATACCTGACTTCATCTTGC CGACGTCAGCCAGGGGACATCAGGGGGATGACAGGTACATCTGTGACCGCCTTTA 650 8 8 8

caace------reactaacecacateratarateresearatareteresearatereseare 627 8 8 ద

GCCCGGCATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAA 770

ò

BX421287 1201 bp mRNA linear EST 15-MAY-2003 EAX1287 Homo sapiens B CELLS (RAMOS CELL LINE) Homo sapiens CDNA clone CSODG004YG09 5-PRIME, mRNA sequence. BX421287.1 GI:30766068 Homo sapiens (human) ACCESSION

Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

II (bases 1 to 1201)

II, W.B., Gruber, C., Jessee, J. and Polayes, D.

Spill-length DDNA libraries and normalization

Unpublished (2001)

Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 ENPY cedex - France
Email: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/

RESULT 3 BX421287 LOCUS DEFINITION VERSION KEYWORDS SOURCE ORGANISM

REFERENCE AUTHORS TITLE JOURNAL COMMENT

678 697

757 738 817

Length 1201;

rage

181.1-7CO-/05-8O-8D

### 130 GGGCCCCCAAAACCCCCAAACCCCCCAACCCCCCCCCC	£7 da		One Bes
990 CTGCTGGCTGCCATATATGGGGGATCAGATCAGATCCTCTTTTTCGGGTGCTTTTGGGGTGTTTGGGTGTGTGTGTGTGTGTGTGTGTGTG		GGGCCACCAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTCTTGC 88	Mat
950 CANGUAGGATGTCACCTCGAGACCATTGTCACAAGTGGATCTCCATCACAGAGGCCT 1009 112 CAAGCAAGGATGTTCACATTGAGAACTCTCCAAGAGGATTCATCACAGAGCCCT 101 100 CACCTTCTCCACTTGACTTGACACCTCCAAGAGGATCACACAGAGCCCT 101 101 CAACGAAGGATGTTTGACACCTCCACCTCAAGAGATCTTCATACA 105 112 CAAGCAAGCACCACCACCACCACCACCTCCACCTCCACACACTTCTTC		CIGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCAT	8 & 8
1010 COCCITCTICCACTOSTICGCTGAACCCCATCCTCTATCCTCTCCGGGGCCAACTTCAA 1069 972 ACCITCTICCACTGGTGGACCCCATCCTCTATCCTCTCTCGGGGCCAACTTCAA 1000 1070 AAGCTCTGCCCAGCATCACTCAACTCAACTCTCTTCTAGACCAAATTWAA 1000 1071 MATCTCGCCAACACTCACCTTCAACTCATCTCTTCTCTGGGCCAAATTWAA 1000 1071 MATCTCGCCAACACTCACCTTCAACTCATCACTCTCTCAACATCTTCT		CAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGGCCCT 100	Db Qy
1130 CAGCACCACCACACCACTCCATCACACCACCACACTCCATCACACCAC		GCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAA	qq
1030 DASCCCTOCCCGGCGCGCCCCCCCCCGCGCCCCCCCCCCCCC		AGCITIYITYCACIGIIGIYIGAACCCCWICYICIAIG-CITYCIIGGRGCWAATIIWAA 103	ò
		AAGCTCTGCCCAGCATGCACTCAATGAGCAGAGGCTCCAGCCTCAAGATCCTTTC :	a &
		CAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCAGAATCCTCCAGTTTTCA 118	q
1190 CTCCAGCTAACCCTTATGCAAAGACTTATATAATATATAT		:  :	ò
BX396365 BX396365 Homo sapiens PLACENTA COT 25-NORMLIZED Homo sapiens CDNA close CSDDIO15YL20 5-FRIME, mRNA sequence.  BX396365 Homo sapiens PLACENTA COT 25-NORMLIZED Homo sapiens CDNA close CSDDIO15YL20 5-FRIME, mRNA sequence.  BX396365.1 GI:30609085 EXT 3-MAY-2003 HOMO sapiens (human)  MARMAILS SAPIENTALY CARAITATION OF CARAITATION OF COLOR SAPIENS HOMO sapiens (human)  MARMAILS SAPIENTAL SAPIENTAL OF CARAITATION OF COLOR OF THE COLOR OF THE CARAITATION OF THE COLOR OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITATION OF THE CARAITAT		CICCAGCIAACCCITAIGCAAAGACITAIAIAAIAIAIAIAIAIAIAIGAIAAAGAA 124	qu
BX396365 BX396365 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens CDNA clone CSDDIO15YL20 5-FRIME, mRNA sequence.  **RX396365.1 GI:30609085 BX396365.1 GI:30609085 BX396365.1 GI:30609085 BX396365.1 GI:30609085 BY396365.1 GI:30609085 BY396365.1 GI:30609085 BY396365.1 GI:30609085 BY396365.1 GI:30609085 BY396365.1 GI:30609085 BY396365.1 GI:30609085 BY39636.2 GITMENTIAL SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SETTING SET SET SETTING SET SET SET SET SET SET SET SET SET SET		KTAARATTITITITITITAAAAHWITITITITITITITIDWWAARARGKWAAWKKA 12	ò
BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX39636.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365.1 G1:30603085 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX396365 BX3963665 BX3963665 BX3963665 BX3963665 BX3963665 BX39636665 BX39636665 BX39636665 BX39636665 BX396366665 BX39636666666666666666666666666666666666			q <sub>Q</sub>
BX396365 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens cDNA clone CSODIO15Yi20 5-PRIME, mRNA sequence.  BX396365.1 GI:30609085 BX396365.1 GI:30609085 BX396365.1 GI:30609085 BX396365.1 GI:30609085 BX396365.1 GI:30609085 BX396365.1 GI:30609085 BX396365.2 GI:30609085 BX396365.2 GI:30609085 BUMARYOLA METACAR, Chrodata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria; Primates, Catarrhini, Hominidae; Homo.  Li,W.B., Gruber, C., Jessee, J. and Polayes, D.  Pull-length CDNA libraries and normalization Unpublished (2001) Contact: Genoscope Genoscope - Centre National de Sequencede BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 91006 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9100 BVX cedex - France BP 191 9		AND TO TEST TEST TO THE TAIL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TO	ò
EX39365  EX39365.1 G1:30609085  EX39365.1 G1:30609085  EX39365.1 G1:30609085  EX39365.1 G1:30609085  EX39365.1 G1:30609085  EX39365.1 G1:20609085  EX39365.1 G1:2061  EXAMPLE SET EXPLEATES PRIMATES, CATATRIDIS, Hominidae; Homo.  In, W.B. Gruber, C., Jessee, J. and Polayes, D.  In, W.B. Gruber, C. Jessee, J. and Polayes, D.  In, W.B. Gruber, C. Jessee, J. and Polayes, D.  Contact: Genoscope  Contact: Genoscope - Centre National de Sequencage  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 91006 EVRY cedex - France  EP 191 9106 EVRY cedex - France  EP 191 9106 EVRY cedex - France  EP 191 9106 EVRY cedex - France  EP 191 9106 EVRY cedex - France  EP 191 9106 EVRY cedex - France  EP 191 9106 EVRY cedex - France  EP 191 9106 EVRY cedex - France  EP 191 9106 EVRY cedex - France  EP 191 9106 EVRY cedex - France  EP 191 9106 EVRY cedex - France  EP 191 9106 EVRY cedex - France  EP 191 9106 EVRY cedex - France  EP 191 9106 EVRY cedex - France  EP 191 9107 PVR cedx cedx companies  EP 191 9107 PVR cedx cedx cedx cedx cedx cedx cedx cedx	ITION	LECT DE MINISTER DE LECT DE L'ANTI-ZON TINGATE L'ACT 25-NORMALIZED HOMO SADIENS CDNA IME. MRNA SEQUENCE.	qq
Homo sapiens (human) Homo sapiens (human) Homo sapiens ENY Homo sapiens ENY Homo sapiens ENY Homo sapiens ENY Homo sapiens ENX Homo sapiens ENX Homo sapiens ENX Homo sapiens ENX Homo sapiens ENX Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo sapiens Homo		BX396366 300 11 11 11 11 11 11 11 11 11 11 11 11 1	ò
Home appiens (manuary) Home appiens (bordata; Craniata; Vertebrata; Buteleostomi; Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.  I (bases 1 to 1201) I (bases 1 to 1201) I (bases 1 to 1201) Full-length cDNA libraries and normalization Unpublished (2001) Full-length cDNA libraries and normalization Unpublished (2001) Genoscope - Centre National de Sequencage Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - France BP 191 91006 EVRY cedex - France BP 191 91006 EVRY cedex - France BP 191 91006 EVRY cedex - France BP 191 91006 EVRY cedex - France BP 191 91006 EVRY cedex - France BP 191 91006 EVRY cedex - France BP 191 91006 EVRY cedex - France Cenoscope - Centre National de Sequence cluster 1272.r For Inbrary was constructed by Life Technologies, a division of Invitrogen. This sequence belongs to sequence cluster 1272.r For Cegi-bin/cluster.cgi?eeq=CSODIOISDF10QP1&cluster=1272.r. Contact : Cegi-bin/cluster.cgi?eeq=CSODIOISDF10QP1&cluster=1272.r. Contact : Cegi-bin/cluster.cgi?eeq=CSODIOISDF10QP1&cluster=1272.r. Contact : Cegi-bin/cluster.cgi?eeq=CSODIOISDF10QP1&cluster=1272.r. Contact : Cegi-bin/cluster.cgi?eeq=CSODIOISDF10QP1&cluster=1272.r. Contact : Cegi-bin/cluster.cgi?eeq=CSODIOISDF10QP1&cluster=1272.r. Contact : Cegi-bin/cluster.cgi?eeq=CSODIOISDF10QP1&cluster=1272.r. Contact : Cegi-bin/cluster.cgi?eeq=CSODIOISDF10QP1&cluster=1272.r. Contact : Cegi-bin/cluster.cgi?eeq=CSODIOISDF10QP1&cluster=1272.r. Contact : Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=CSODIOISTER Cegi-bin/cluster.cgi?eeq=C		BANDGAGO.1 GI:JUGUQOO BANDGAGOO (himan)	ব্য
Manualla, Eucheria; Primates; Catarrhini; Hominidae; Homo.  1 (bases I to 1201)  Li,W.B., Gruber,C., Jessee,J. and Polayes,D.  Full-length oDNA libraries and normalization  Unpublished (2001)  Contact: Genoscope.  Genoscope - Centre National de Sequencage  BP 191 91006 ENFW cedex - France  Genoscope - Centre National de Sequencage  BP 191 9106 ENFW cedex - France  Genoscope - Centre National de Sequencage  BP 191 9106 ENFW cedex - France  Invitrogen. This sequence belongs to sequence cluster 1272.r For  Invitrogen. This sequence belongs to sequence cluster 1272.r For  Invitrogen. This sequence belongs to sequence cluster 1272.r For  More information about this cluster, see  http://www.genoscope.cns.fr/  cdi-bin/cluster.cgi?seq=cSODIO15DF100P1&cluster=1272.r. Contact :  Feng Liang Email : fliang@lifetech.com URL:  Feng Liang Email : fliang@lifetech.com (InvitroGen Corporation 1600  Faraday Avenue Genoscope sequence ID : CSODIO15DF10QP1.  Forganism="Homo sapiens"  / organism="Homo sapiens"  / organism="Homo sapiens"  / clone="ESCODIO15P122C"  / tissue type="MENA"  / db xref="Farad cDNA was primed with an NotI-oliga(dT)  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"  / clone="Inlb-"Homo sapiens PLACENTA COT 25-NORWALIZED"	ORGANISM	Sapiens (mamman) Sapiens Morieca, Chardara, Cramista, Vertebrata, Ritel	ò
Liwes, Gruber, C., Jessee, J. and Polayes, D. Full-length cDNA libraries and normalization Unpublished (2001) Unpublished (2001) Unpublished (2001) Unpublished (2001) Unpublished (2001) Unpublished (2001) Unpublished (2001) Unpublished (2001) Unitrogen - Centre National de Sequencage Genoscope - Centre National de Sequencage BP 191 91006 ENYR Cedex - France BP 191 9106 ENYR Cedex - France BP 191 9106 ENYR Cedex - France BP 191 9106 ENYR Cedex - France BP 191 9106 ENYR Cedex - France BP 191 9106 ENYR Cedex - France BP 191 9106 ENYR Cedex - France BP 191 9106 ENYR Cedex - France BP 191 9106 ENYR Cedex - France BP 191 9106 ENYR ENYR Cedex - France BP 191 9106 ENYR ENYR ENTRY CEDIOLE ENTRY CEDIOLE ENTRY CEDIOLE ENTRY CEDIOLE ENTRY CEDIOLE ENTRY CEDIOLE ENTRY CEDIOLE ENTRY CEDIOLE ENTRY CEDIOLE ENTRY CEDIOLE ENTRY CEDIOLE ENTRY Was normalized."    Listes of the pCMVSFORT 6 vector Library was normalized."		chordata; Crantata; Vertebrata; Buter Primates; Catarrhini; Hominidae; Homo	qa
AL Terging CDMA IDEALES and NORMALIZACION  (Dipublished (2001)  Contact: Genoscope  Genoscope - Centra Cons.fr, Web : www.genoscope.cns.fr  Library was constructed by Life Technologies, a division of  Invitrogen. This sequence belongs to sequence cluster 1272.r For  more information about this cluster, see  http://www.genoscope.cns.fr/  cgi-bin/cluster.cgi?seq=CSODIO15PF10QP1&cluster=1272.r. Contact :     Feng Liang Email : fliang@lifetech.com URL :     Feng Liang Email : fliang@lifetech.com URL :     http://fulllength.invitrogen.com/ InvitroGen Corporation 1600     Faraday Avenue Genoscope sequence ID : CSODIO15DF10QP1.  S	AUTHORS	and Polayes,	ò
Genoscope - Centre National de Sequencage BP 191 91006 ENEY Cedex - France BP 191 9106 ENEY Cedex - France Elbrary was constructed by Life Technologies, a division of Invitrogen. This sequence belongs to sequence cluster 1272.r For more information about this cluster, see http://www.genoscope.cns.fr/ cgi-bin/cluster.cgi/seq=cSODIO15DF10QP1&cluster=1272.r. Contact: Feng Liang Email : fliang@lifetch.com URL: Feng Liang Email : fliang@lifetch.com URL: Feng Liang Email : fliang@lifetch.com Comporation 1600 Faraday Avenue Genoscope sequence ID : CSODIO15DF10QP1.  S	TITLE JOURNAL	n cona ilbraries and normalizaci 1 (2001) program	q —
EMP 1919 1910 EVER COGGS. France EMP 1919 1910 EVER COGGS. France EMP 1919 1910 EVER COGGS. France Library was constructed by Life Technologies, a division of Library was constructed by Life Technologies, a division of Library was constructed by Life Technologies, a division of Initrogen. This sequence belongs to sequence cluster 1272.r For more information about this cluster, see http://www.genoscope.cns.fr/ cgi-bin/cluster.cgi-seq-eSOBIOIOSDF10QPIscluster=1272.r. Contact: Fong Liang Email: fliangelifetech.com/ InVitroGen Corporation 1600 Faraday Avenue Genoscope sequence ID: CSODIOISDF10QPI.  Location/Qualifiers Location/Qualifiers Location/Qualifiers location/Cualifiers Location/Qualifiers Location/Sull 187120"  Anol_type="mRNA" Ab_zxef="taxon:9606" Aclone="CSOBIOIST20" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Homo sapiens PLACENTA COT 25-NORMALIZED" Aclone Lib=Hom	T NIGHT	Genoscope - Centre National de Sequencage	ò
Library was constructed by Life Technologies, a division of Invitrogen. This sequence belongs to sequence cluster 1272.r For more information about this cluster, see http://www.genoscope.cns.fr/ cgi-bin/cluster.cgi?seq=CSODIOISDF10QPl&cluster=1272.r. Contact: Feng Liang Email: fliang@lifetech.com URL: Feng Liang Email: fliang@lifetech.com URL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com (RL: Feng Liang@lifetech.com (RL: Feng Liang Email: fliang@lifetech.com		os EVRY cedex - France ref@genoscope.cns.fr, Web : www.genoscope.co	qu
mere information about this Gluster, see  more information about this Gluster, see  http://www.genoscope.cns.fr/ cgi-bin/cluster.cgi?seq=CSODIO15DF10QP1ecluster=1272.r. Contact: Feng Liang Email: filangalifeceh.com URL: Feng Liang Email: filangalifeceh.com Corporation 1600  Faraday Avenue Genoscope sequence ID: CSODIO15DF10QP1.  Location/Qualifiers  1. 1201  /organism="Homo sapiens" //mol_type="manNa" /db xref="taxon:9606" /clone="CSODIO15Y120" //lssue="type="manNa" /db xref="taxon:9606" /clone="type="thacenta cDNA was primed with a NotI-oligo(dT) /clone Tib="Homo sapiens FLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone T		2.r	ò
ogg-bin/ChisTer (2017seg = CSUDIOLDFILOGIACUSECT=12/2.1. Concact conjuding Email : fliangelifetech.com URL : http://fulllength.invitrogen.com/ InvitroGen Corporation 1600 Faraday Avenue Genoscope sequence ID : CSODIOLSDF10QP1.  Location/Qualiflers  Location/Qualiflers  1. 1201 Corganism="Homo sapiens"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE="MRNA"  ADI_LYPE		more information about this cluster, see http://www.genoscope.cns.fr/	qa
http://fullength.invitrogen.com/ InvitroGen Corporation 1600 Faraday Avenue Genoscope sequence ID: CSODIO15DF10QP1.  Location/Qualifiers  1. 120.  Acrafie="Robin sapiens"  Anolary Expe="MRNA"  Ab_xref="taxon:9606"  Aclone="CSODIO15Y120"  /clone="CSODIO15Y120"  /clone="CSODIO15Y120"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"  /clone="Taxon:9606"			ò
Location/Qualifiers  1. 120.  1. 120.  Anol_type="mENA"  Ab xref="taxon:9606"  /clone="CSODIO15YL20"  /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"  /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"  /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"  /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"  /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"  /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"  /clone Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"  /clone Tib="Homo sapiens PLACENTA"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo sapiens"  /clone Tib="Homo s		cion Pl.	qū
/organism="Homo sapiens" /mol_type="meNA," /db_xref="texon:9606" /db_xref="texon:9606" /clone="CSONIO15Y120" //issue_type="PLACENTA COT 25-NORMALIZED" /clone lib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED /clone lib= Homo sapiens PLACENTA COT 25-NORMALIZED /clone lib= Homo sapiens PLACENTA COT 25-NO	EATURES source		λō
/db_xref="taxon:9606" /clone="cS00f0165Y120" /tissue=type="PLACENTA COT 25-NORMALIZED" /clone lib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib="Homo sapiens PLACENTA COT 25-NORMALIZED" /clone lib="Homo sapiens PLACENTA" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapiens" /clone lib="Homo sapi		/organism="Homo sapiens /mol type="mRNA"	qq
/tissue_type="PlaceNTA COT 25-NORMALIZED" /clone lib="Homo sapiens PlaceNTA COT 25-NORMALIZED" /note="Ist strand cDNA was primed with a NotI-oligo(GT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and BcoR V sites of the pCMVSFORT 6 vector. Library was normalized."		/db xr4="taxon:9606" /clone="CS011015Y120"	,
/note="lst strand cDNA was primed with a NoII-01go(dI) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and BcoR V sites of the pCMVSFORT 6 vector. Library was normalized."		A COT 25-NORM	q
sites of the pCMVSFORT 6 vector. Library was normalized."		11st strand cDNA was prined with a NotI-oligo (GT) Five prime end enriched, double-strand cDNA was Five prime and cloned into the Not I and ECOR	Š
	i i	ites of the pCMVSFORT 6 vector. Library was normali	qq

```
ÿ
                                                                                                                                                                                                                                                                                                                                    944
                                                                                                                                306
                                                                                                                                                                                 359
                                                                                                                                                                                                                                                   479
                                                                                                                                                                                                                                                                     546
                                                                                                                                                                                                                                                                                                                     599
                                                                                                                                                                                                                                                                                                                                                                      726
                                                                                                                                                                                                                                                                                                                                                                                                      786
                                                                                                                                                                                                                                                                                                                                                                                                                     764
                                                                                                                                                                                                                                                                                                                                                                                                                                        846
                                                                                                                                                                                                                                                                                                                                                                                                                                                        824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         996
                                126
                                                123
                                                                186
                                                                                179
                                                                                                 246
                                                                                                                239
                                                                                                                                                 299
                                                                                                                                                                  366
                                                                                                                                                                                                   426
                                                                                                                                                                                                                   419
                                                                                                                                                                                                                                    486
                                                                                                                                                                                                                                                                                    539
                                                                                                                                                                                                                                                                                                    909
                                                                                                                                                                                                                                                                                                                                                                                       704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         487 ACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACG
                                                                                                                                                                                                                                                                                                                                                                                                      ATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCC
                                                                                                           180 ATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCC
                                                                                                                                  TGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGGCAATGGATTGGTGATCC
                                                                                                                                           240 TGCCCACCATCTACTCCATCATCTTTAACTGGGCATTGTGGGCAATGGATTGGTCATCC
                                                                                                                                                                  307 TGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACTGT
                                                                                                                                                                           300 IGGICALGGGITACCAGAAGAAGAACTGAGAAGCATGACGACAAGGACAGAGCTGCACTGT
                                                                                                                                                                                                                                                                                                    547 CCACCAACACTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCT
                                                                                                                                                                                                                                                                                                              540 CCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGCTCT
                               TCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGCGAGTGTTGCCATGGAAC
                                           TCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAAACCAGCGGTTACCATGGA
                 Gaps
                26;
Length 1201
ery Match 37.6%; Score 705.6; DB 13; Length st Local Similarity 82.0%; Pred. No. 9.7e-72; tches 884; Conservative 7; Mismatches 161; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                            765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1004
                                                                 127 (
                                                                                                                                                                                                                                                                                                                                                                                                                                           787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             945
                                                                                                                                    247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             967
                                  67
                                               65
                                                                                   124
                                                                                                   187
```

TCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGGAAATTTTTGT 991 751 512 1051 631 678 811 331 391 392 451 452 ACCESSION VERSION KEYWORDS SOURCE ORGANISM DEFINITION AUTHORS TITLE JOURNAL COMMENT RESULT 6 BX358346 LOCUS REFERENCE g ઠે g à g ò g ò 셤 ò g ò g 8 В 임 g ð g 8 ò 8 음 8 ઠે ઠે /organism="Homo sapiens"
/mol\_type="mRNA"
/db\_refe="taxon:9606"
/db\_refe="taxon:9606"
/db\_refe="taxon:9606"
/clone="type="B CELLS (RAMOS CELL LINE)"
/cell\_line="RAMOS CELL LINE"
/clone=lib="Homo sapiens B CELLS (RAMOS CELL LINE)"
/clone="vector: pcMvSpORT 6; lst strand cDNA was primed with a NorI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Nor I and cloned into the Not I and EcoRV sites of the pcMvSpORT 6 vector.
Library was not normalized." Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

El (Dasses 1 to 1201)

S. Li,W.B. Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization

Unpublished (2001)

Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
Email: Seqrefagenoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq-CSODG007BG06QP1&cluster=1272.r. Contact:
Feng Liang Email: flang@lifetech.com URL:
Feng Liang Email: flang@lifetech.com URL:
Feng Liang Email: flang@lifetech.com URL:
Feng Liang Email: flang@lifetech.com URL:
Library Avenue Genoscope sequence ID: CSODG007BG06QP1. ω, BX421511
BX421511 Homo sapiens B CELLS (RAMOS CELL LINE) Homo sapiens CDNA clone CSODG007YM12 5-PRIME, mRNA sequence. 270 210 211 271 330 331 91 ACCACCACGACGACGAGGAGGAGGATGCCATGGAACCGATCAGTGTGAGTATATACACTT 150 151 90 96 1087 CACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGG 1144 1060 CACTCACCTCTGTTAGCAGAGGGKCWAG-CTCAAGATCTCTCWAARGGAAGCGRGGGG 1116 37 Accedicegonarrecessargerascaangerascaeseseseseseseseseseses CAGATAACTACMCCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTT 211 TCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCT 212 recercia a de la reconstrucia de la reconstrucció de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstrució de la reconstruc TCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGC GCCACCCCMTCTGGAGAACCAGCGGTTACCATGGA-----GGGGGATCAGTATATACACTT 151 CTGATAACTACTCTGAAGAAGTGGGGTCTGGAGCTATGACTCCAACAAGGAACCCTGCT AGOGGCCGCCCGGGCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTA 20; Gaps 37.5%; Score 704.6; DB 13; Length 1201; Similarity 81.4%; Pred. No. 1.3e-71; S0; Conservative 7; Mismatches 167; Indels 20; BX421511 BX421511,1 GI:30651194 Homo sapiens (human) 1. .1201 Homo sapiens Query Match Best Local Simi: Matches 850; 6 152 271 272 ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL COMMENT LOCUS RESULT 5 BX421511 FEATURES 8 8 8 셤 원 8 6 ò ò d

```
BX358346
BX358346 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens CDNA clone CSODIO36YJ17 5-PRIME, mRNA sequence.
BX358346
BX358346.1 GI:30370215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTCCATCACAGAGGCCCTTCGTTCCACTGTTGCCTGAACCCCATCCTCTATGCCT 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         978 TITICCATCACCEAGGCCCTAGCTTTCTTCCACTGTTGTCTGAA-CCCATCCTCTATGCTT 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      871 TCATCCTAGCTTTCTTTGCCTGCTGCCATATTATGTGGGGATCAGCATCGACTCCT 930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTAAGCTGTCACACTCCAAGGGCCACCAGGAGGGCCAAGGGCCCTCAAGACGACAGTCATCC 870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            857
                                                                                                                                      570
                                                                                                                                                                                                                                                                      631
                                                                                                                                                                                                                                                                                                                  690
                                                                                                                                                                                                                                                                                                                                                            677
                                                                                                                                                                                                                                                                                                                                                                                                                                                  737
                                                     510
                                                                                            511
      451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                           691 ACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGTGGTTGTGTTCCAGTTTCAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            511 TCATCAGCCTGGACCGGGTACCTCGCCATTGTCCACGCCACCAACAGTCAAAGGCCAAGGA
                                                                                                                                                                  738 TCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGCATTATCATCT
TCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGGAAACTGGTACTTTGGGAACTTCCTAT
                                                                                          GCMAGGCAGTCCATGTCTACACAGTCAACCTCTACAGCMGTGTCCTCATCCTGGCCT
                                                                                                                                                                                                                               571 AACTGCTGGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCGACTA
                                                                                                                                                                                                                                                                                                                  TAATGGTGGGTCTCATCCTGCCGGCATCGTCATCCTCCTGTTACTGCATCATCT
                                                   GTAAGGCTGTCCATATCATCTACACTCAACCTCTACAGCAGCGTTCTCATCCTGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Butelec
Mammalia; Butheria; Primates; Catarrhin; Hominidae; Homo.
11, (bases 1 to 1201)
11, W.B., Gruber, G., Jessee, J., and Polayes, D.
Full-length cDNA libraries and normalization
Ompublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 FYRY cedex - France
Email: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1037 TCYTTGGAGCAAATTTAAAACTCT 1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCTCGGGGCCAAGTTCAAAAGCT 1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
Homo sapiens
```

**UB-09-36/-052-1.FBC** 

526 286 646 653 706 669 994 346 406 533 593 106 286 294 GGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAACTGAGAAGCATGACGGA 353 414 GGCAGTTGATGCCGTGCCAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGT 473 118 166 173 226 233 293 caagracaegerecaecrereaegeceaecerecrerrareaeaeeerreee 413 GGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAAGGCTGTCCATAT 466 | 1. 1201 | Organisms"HOmo sapiens" | Mol\_Lype="mRNA" | Ab\_Xref="taxon:9506" | Aclone="CSODIO36Y17" | Aclone\_Tib="Homo sapiens PLACENTA COT 25-NORMALIZED" | Anote=Tigst strand oDNA was primed with a NotI-Oligo(dT) | Drote=Tigst strand oDNA was primed, double-strand cDNA was digested with Not I and cloned into the Not I and ECOR V sites of the pCMVSPORT 6 vector. Library was normalized." undrary was constructed by Life Technologies, a division of Invitrogen. Contact : Feng Liang Email : fliang@lifetech.com URL http://fulllength.invitrogen.com/ InVitroGen Corporation 1600 Faraday Avenue Genoscope sequence ID : CSODIO36CE09QPI. TTACCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCAT CTACCCCAATGACTTGTGGGGTGGTTGTGTTCCAGTTTCAGCACATCATGGTTGCCTTAT TGCCGACGTCAGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCT AACCAGCGGTTACCATGGA----GGGGATCAGTATATACACTTCAGATAACTACACGA CATCTACACTGTCAACCTCTACAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCG daticcaddradchaadreacdccdaddgccraadrecricdadradccaccacarcrddad 174 GGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCGGTGAAGAAATGG CCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGT CAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTCTG GGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAG AGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGA AGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGT CGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGA 20; Gaps 37.3%; Score 701; DB 13; Length 1201; ilarity 82.8%; Pred. No. 3.2e-71; Conservative 4; Mismatches 150; Indels 20 Similarity 838; 594 654 707 200 347 354 587 647 107 119 167 227 287 467 47 407 59 Query Match Best Local S Matches ORIGIN g g a 셤 qq δ ò à d ò g ò Db Š a ò g  $\delta$  $\delta$ Ωp  $\dot{\delta}$ qq ò

```
BX353253 Homo sapiens NEUROBLASTOMA COT 25-NORMALIZED Homo sapiens cDNA clone CSODC003YG03 5-PRIME, mRNA sequence.
BX35253.
BX353253. GI:30347726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
//organism="Homo sapiens"
//db itype="mcNA"
//db xref="taxon:866"
/clone="CSODCO03YG03"
/clone="CSODCO03YG03"
/clone lib="Homo sapiens NEUNOBLASTOWA COT 25-NORMALIZED"
/clone lib="Homo sapiens NEUNOBLASTOWA COT 25-NORMALIZED"
/note="lst strand cDNA was primed with a NotI-oligo(dT)
/primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                        946
                                                                                                                                    939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (human)
Homo sapiens
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhin; Hominidae; Homo.
1 (bases 1 to 1201)
Liv.B., Gruber, C., Jessee, J. and Polayes, D.
Full.length cDNA libraries and normalization
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Countain Serioscope - Centre National de Sequencage
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Bmail: seqrefégenoscope.cns.fr, web : www.genoscope.cns.fr
Library was constructed by life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
egi-bin/cluster.cgi?seq=CSODC003AD02QP1&cluster=1272.r. Contact
Feng Liang Email: fliang@lifetech.com VIAL:
http://fulllength.invitrogen.com/ InvitroGen.Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODC003AD02QP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGTGCAGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120 AGAACCAGCGTTACCATGGA----GGGGATCAGTATATACACTTCAGATAACTACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAAC
                                                                                                                                                                                   CATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGC
                                  CAAGGGCCACCAGAAGGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTT
                                                                                                                                  880 cácchárnáscháchhachrássáhrascarcarcarcarcharachan
                                                                                        TGCCTGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGT
                                                                                                                                                                                                                        CATCAACCAAGGGTGTGTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGC
CAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                    1000 CCTAGCTTTCTTCCACTGTTGTYTGAA-CCCATCCTCTATTSTTTCYTGGRG 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23;
                                                                                                                                                                                                                                                                            CCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1201;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tch
al Similarity 80.4%; Pred. No. 2.2e-69;
863; Conservative 6; Mismatches 182; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S:
Matches 863,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 165
                                                      820
                                                                                                  887
                                                                                                                                                                                        947
                                                                                                                                                                                                                                       940
                                                                                                                                                                                                                                                                                   1001
       827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 7
BX353253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                         q
                                                                                               ò
                                                                                                                                  g
                                                                                                                                                                                        à
                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                        셤
```

826 819

767

 $\stackrel{>}{\circ}$ 

```
1000 GCCCTAGCTTTCTT-CACTGTTGTCTGAA-CCCATCCTCTATG-CTTTCTTGGAGCAAAT 1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCCTCGCCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAG 1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     945 GTCATCAAGCAAGGATGTGACTTCGAGAGTATGTGCACAAGTGGATCTCCATCACAGAG 1004
GTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATA 284
                                                                          235 GCTAATTICAATAAAATCTICCIGCCCACCATCTACTCCATCATCTTCTTAACTGGCATT 294
                                                                                                                        344
                                                                                                                                                       354
                                                                                                                                                                                       404
                                                                                                                                                                                                                       414
                                                                                                                                                                                                                                                     464
                                                                                                                                                                                                                                                                                                                                                       534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                       ATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGAC 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       819
                                                                                                                                                                                                                                                                                                                                                                                   535 CGCTACCTGGCCATCGTCCACGCCACCAACAGTYAGAGGCCAAGGAAGCTGTTGGCTGAA 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCGACTATACCTGACTTCATC 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTGCCGACGTCAGCCAGGGGGACATCAGGGGGATGACAGGTACATCTGTGACCGC 704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTGCCAACG------TCAGTANGGCAGATGACAGATATATCTGTGACGC 699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   705 CITIACCCCGAIAGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTC 764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     700 TICTACCCCAAIGACTIGIGGGIGGITGTICCAGTITCAGCACATCATGGITGGCCTT 759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCCTGCCCGCCATCGTCATCCTCTGTTACTGCATCATCTCTAAGCTGTCACAC 824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACGACGACGACTCATCCTCATCCTAGCTTTC 884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rccaaggccaccagaagcgcaaggcccrcaagaccacagrcarccrcarccrggcrrrc 879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rredecrerkáseracerracrasarrassarcaserresacrecricarecrecrassas 939
                                                                                                                                          295 GTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACG
                                                                                                                 GTCGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACG
                                                                                                                                                                                                                   355 GACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTC
                                                                                                                                                                                                                                                   TGGGCAGTTGATGCCATGCCTGACTGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCAT
                                                                                                                                                                                                                                                                                                                                                   GACAAGTACCGGCTGCACCTGTGGCTGACCTCCTCTTTGTCATCACACTCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGGTGGTCTATGTTGCCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            760 ATCCTGCCTGGTATTGTCATCCTGTCTATTGCATTATCATCTCCACACCTGTCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              940 ATCATCAACCAAGGGTGTGAGATTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITGCCTGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1065 ITCAAAAGCICTGCCCAGCATGCACTCCATGAGCAGAGGCTCCAGCCTC 1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1057 TWAAACTCTGCCAGCACGCACTCACTCTTAGAGAGGGTCMRSCTCAGATCTC 1110
                                                   225
                                                                                                                   285
                                                                                                                                                                                                                                                     405
                                                                                                                                                                                                                                                                                   415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     820 '
                                                                                                                                                                                   345
                                                                                                                                                                                                                                                                                                                     465
                                                                                                                                                                                                                                                                                                                                                                                     525
                                                                                                                                                                                                                                                                                                                                                                                                                                                     585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     880
                                                                              g
                                                ò
                                                                                                        · &
                                                                                                                                          Q
                                                                                                                                                                                 ઠે
                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
```

```
RESULT 8
BM545259
BM545259
BM545259
LOCUS
DEFINITION AGENCOURT 6497171 NIH_MGC_124 Homo sapiens cDNA clone IMAGE:5726963
ACCESSION
BM545259.1 GI:18777197
KEXMORDS
BST.
SOURCE
HOMO Sapiens (human)
```

```
Homosapiens Sapiens Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1. (Bases I to 1051).

1. (Bases I to 1051).

1. Unpublished (1999).

2. Ontact: Robert Strausberg, Ph.D.

2. Email: cgapbs-r@mail.nih.gov.

Tissue Procurement: Invitrogen

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Preparation: Library Prep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tiseue_type="hippocampus"
/lab_host="DH10B"
/clone_lib="NIH_MGC_124"
/note="Organ: Drain; Vector: pCMV-SPORT6; Site_1: ECORV
/note="Organ: Dialog-Off primed and directionally
ge_27. Library is Oligo-Off primed and directionally
cloned (ECORV site is destroyed upon cloning). Average
insert size 1.4 kb, insert size range 0.9-4 kb. Library is
normalized and enriched for full-length clones and was
constructed by C. Gruber (Invitrogen). Research Genetics
tracking code 012."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            54 GTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGACTGTAGAGCGAGT 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                236 GGATIGGICATCCTGGICATGGGTTACCAGAAGAAACTGAGAAGCATGACGACAAGTAC 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      114 GTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTG 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             116 GGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAATGCTAATTTC 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              234 AATAGGAICTTCCTGCCCACCATCTACTTCATCATCTTGTTGACTGGCATAGTCGGCAAT 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         296 AGGCTGCACTGTCAGTGGCGGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTT 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            414 GATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGAGGCTGTCCATATCATCTAC 473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  474 ACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTC 533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACAGTCAACCTCTACAGCGAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTG 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           356 GATGCCGIGGCAAACIGGTACTTIGGGAACITCCTATGCAAGGCAGTCCATGTCAICTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTAGCAAAGTGACGCCGAGGGTCTGACTGCTCCAGTAGCCACCGCATCTGGAGAACCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 GGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACACCGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             294 GGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGGATGAAAACGTCCATTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      354 CGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match 36.5%; Score 684.8; DB 12; Length 1051; Best Local Similarity 81.6%; Pred. No. 2.5e-69; Matches 873; Conservative 0; Mismatches 172; Indels 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:5726963"
        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
ORGANISM
                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ដ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
```

1069 CAA-GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCCATCACAGA-GGCCCTCG 1011 crircircacrerridecreaaccccarccrerareccirirccrreaaccccaarraa 1000 940 760 893 953 880 535 653 595 713 640 773 700 833 CACCAGAAGCGCAAGGCCCTCAAGACCACAGTCCTCCATCCTGGCTTTCTTCGCCTGT 820 593 CAAGGGGTGTGAGTTTGAGAACACGGTGCACAAGTGGATTTTCATCACCGAGGGCCCTAG TATGITGGGGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGACTTCATCTTGCCAAC TGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAG TGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAG CCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTT - - CCTCGGGGCCAAGTTCAA GCCATCGTCCACCACCACCACAGTCAGAGCCCAAGGAAGCTGTTGGCTGAAAAGGTGGTC TATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGAC GTCAGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCC .------TCAGTGAGGCAGATGACAGATATATCTGTGACGCTTCTACCCC GATAGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCC <u> aargactrieredegreerreretricederriteaecacarearregecerrarectecer</u> GGCATCGTCATCCTCTGTTACTGCATCATCATCTTAAGCTGTCACACTCCAAGGGC AAGCTCTGCCCAGCATGCACTCCATG-AGCAGAGGCTCCAGCCTC 1118 ċ 1012 714 641 954 881 941 1070 1001 476 594 536 654 774 701 834 761 894 821 969 534 a S 8 8 8 원 장 g g ò Б à d ò q ò a ò ò  $\delta$ 

RESULT 9 BX462627

BX462627 Homo sapiens T CELLS (JURKAT CELL LINE) Homo sapiens CDNA clone CSODH005YK10 5-PRIME, mRNA sequence.
BX462627 GI:31029445 Homo sapiens (human) Homo sapiens VERSION KEYWORDS SOURCE ORGANISM LOCUS DEFINITION ACCESSION

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1. (bases 1 to 1201) Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length ODNA libraries and normalization Unpublished (2001)

Euteleostomi;

REFERENCE AUTHORS TITLE JOURNAL COMMENT

Contact: Genoscope Genoscope Report National de Sequencage Genoscope - Centre National de Sequencage Genoscope - Centre National de Sequencage Genoscope - Centre National De 191 91006 ENRY cadax - France Email: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr Library was constructed by Life Technologies, a division of Invitrogen. This sequence belongs to sequence cluster 1272.r For more information about this cluster, see http://www.genoscope.cns.fr/ccgibin/cluster.cgi?seq=CSODH005BF05QP1&cluster=1272.r. Contact : Feng Liang Email : fliang@lifetech.com URL : Feng Liang Email : fliang@lifetech.com URL : http://fulllangth.invitrogen.com/ InvitroGen Corporation 1600 Faraday Avenue Genoscope sequence ID : CSODH005BF05QP1.

source

/organism="Homo sapiens"

7

ׅׅ֝֝֝֝֟֝֝֜֝֝֜֜֝֓֓֜֝֡֜֜֝֓֓֜֜֜֜֜֜֜֜֜֓֓֓֡֓֜֜֜֜֡֓֡֓֜֜֜֡֓֡֓֡֓֡֡֡֜֡֡֓֜֜֡֡֡֡֜֜֡֓֡֡֡֜֜֡֡֡֡֜֜֡֡֡֡֜֜֜֡֡֡֜֜֜֡֡֡֜֜֡֡֡֜֜֡֡֡

/mol\_type="mRNA"

/db\_xref="taxon:9506"

/clone="CSODHOOSYRIO"

/tissue type="T CELLS (JURKAT CELL LINE)"

/coll\_line="JURKAT CELL LINE"

/coll\_line="JURKAT CELL LINE"

/clone\_line="Homo sapiens T CELLS (JURKAT CELL LINE)"

/note="Vector: pcNVSPORT 6; lst strand cDNA was primed with a Not1-oligo(dT) primer Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoRV sites of the pcMVSPORT 6 vector.

Library was not normalized."

into

ORIGIN

4. 114 126 654 714 706 774 766 834 826 986 174 181 234 241 294 301 354 361 414 421 474 481 534 541 594 601 661 ACCAGAAGGGCGAAGGCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTT ATAGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCG Argacticidederocitaticicalitaticale carcatectectes and a contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction o GTATTGTCATCCTGTCCTGCTATTGCATTATCATCTCCAAGCTGTCAACCTCCAAGGGCC 67 TAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAACCAGCG 127 GTTACCATGGA----GGGGATCAGTATATACACTTCAGATAACTACACGAGAAATGG 182 GCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAATGCTAATTTCA ATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGCAATG 242 ATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCATTGTGGGGCAATG GATTGGTGATCCTGGTCATGGCTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACC GGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTG 362 GGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTG 422 Argeceregeaaacregraetrreggaacricetarecaaggeagrecargreateraca CTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCG CAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGG ATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACG TCAGCCAGGGGACATCAGGGGGATGACAGGTACATCTGTGACGCCGCCTTTACCCCG GCATCGTCATCCTCTGCTGATGCATCATCTTCTAAGCTGTCACACTCCAAGGGGCC ACCAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTTGCCTGCT TAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGACTGTAGAGCGAGTG 115 TIGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGG GGTCTGGAGACTATGACTCCAACGAACGAACCTGCTTCCGGGATGAAAACGTCCATTTCA ATGCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCTACA Gaps 23; 13; Length 35.2%; Score 660.8; DB 13; Length 82.3%; Pred. No. 1.2e-66; tive 0; Mismatches 152; Indels 815; Conservative Similarity Query Match Best Local S Matches 815 355 415 542 535 595 602 655 715 707 175 767 835 295 475 482 662 827 55 175 235 g දු පු 8 6 8 26 B 65 \$ 8 \$ В ò 8 8 ò 임 셤 g 8 8 ò  $\ddot{\delta}$ ö

σ

셤

8 8 ò

```
BG174412 958 bp mRNA linear EST 06-FEB-2001
                                                                                                                                                                                                               398
                                                                                                                                                                                                                                                                                                                            399 CCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCT 458
                                                                                                                                                                                                                                                                                                                                                                                  ccrrcrescagnaria de caraca de caraca de contra de caraca de contra de caracade de contra de caracade de contra de caracade de contra de caracade de contra de caracade de contra de caracade de contra de caracade de contra de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade de caracade d
                                                                                                                                                                                                                                                                                                                                                                                                                                          518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        818
                                                                                                                                                         355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            476 grecargrearcracacagreascreracageageagrecrereredegeerrearcages 535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus Sukaryota, Chordata; Craniata; Vertebrata; Buteleostomi; Musmania; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus (bases 1 to 958)
1 (bases 1 to 958)
Nath-MGC http://mgc.nci.nih.gov/.
Nath-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               701 gaccecriciaccecaargacrigicegreciferericeaerreresecaerre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGC
                                                                                                                                                                                                                     TIGICATCACACTC
                                                                                                                                                                                                                                               GCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCGTGACTATACCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACCGCCTTTACCCCCGATAGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCACACTCCAAGGGCCACCAGAAGGGCCAAGAGCCCTCAAGACACACTCATCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             941 cci-dcaaayarcaadcaaddardroadtircadaacacrofocacaagrodar-rccar
                                   GARARAGCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                          GICCATATCHACACTGTCAACCTCTACAGCAGCGTTCTCATCTGGCCTTCATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGACCGGTACCTCGCCATTGTCCACGCCACCAAGACTCAAAGGCCAAGGAAACTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     656 Trcarctrrdccaacg------rcagraggcagargacagaratcrgr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGTCTCATCCTGCCCGGCATCGTCATCCTCTGTTACTGCATCATCATCTAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  881 gecriricriceccieriescrecriraciacariescarcacarcaacircarcer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITGGGAGICATCAAGCAAGGAIGIGACTICGAGAGCAITGIGCACAAGIGGAICICCAI
GAAAACGICCAITICAAIAGGAICTICCIGCCCACCAICIACIICAICAICTICTICAICTIGACI
                                                                                                          GGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCATCTTTGCCGACGTCAGCCAGGGGGACATCAGTCAGGGGGGATGACAGGTACATCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  819 TCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                878 AGCTTTCTTTGCCTGCTGCCTGCCATATTATGTGGGGGATCAGCATCGACTCCTTCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ||| ||||||| CACCGAGGCC--TAGCTTTCTYCMCTGTTGTCTGAACCCATCTCTAT 1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        998 CACAGAGGCCTTCGCTTCTTCCACTGTTGCCTGAACCCCATCCTCT 1044
                                                                                                                                                                                                                        ATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BG174412.1 GI:12681115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA sequence.
BG174412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                938
219
                                                  236
                                                                                                                                                               296
                                                                                                                                                                                                                                                                                                                                                                                                                                                459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          759
                                                                                                          279
                                                                                                                                                                                                                        339
                                                                                                                                                                                                                                                                                                                                                                                       416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
BG174412
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
                                            ď
                                                                                                                                                 g
                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                       à
                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="mRNA"
/dol_txef="texxon:9606"
/dol_col_col_txpe="FETAL BRAIN"
/dev_stage="fEtAl"
/dev_stage="fetal"
/clone=lib="Homo sapiens FETAL BRAIN"
/note="Togan: brain; Vector: pCMVSPORT_6; lst strand cDNA was primed with a Not1-oligq(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoRV sites of the pCMVSPORT 6 vector. Library was not normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Genoscope,
Contact: Genoscope,
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cadex - France
BP 191 91006 EVRY cadex - France
Email: sequef@qenoscope.cns.fr, Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=cSODF006D508QPl&cluster=1272.r. Contact :
Feng Liang Email: fliang@alifetech.com URL:
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODF006DE08QPl.
                                                                                                          1014
                                                                                                                                                                                                                                                                                                                                                                                                            BX418530 Homo sapiens FETAL BRAIN Homo sapiens CDNA clone CSODF006Y316 5-PRIME, mRNA sequence.
                                                                                                                                                                  1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   175
  954
                                                  946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGAT 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata, Vertebrata, Buteleostomi,
Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99 GGCTGTAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GECTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGC
                                   cccedantecadeadenadeaaadreacecceaadeeccreadrecreadraceadeace
                                                                                                          AAGGATGTGACTTCGAGGGATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCT
                                                                                                                                                            947 AaddGTGTGAGTTTGAGAACACTGTGCACAAGTGGAT-TTCATCACCGAGGCC--TAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCGGGCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   34.5%; Score 647.4; DB 13; Length 1201; llarity 81.7%; Pred. No. 4.1e-65; Conservative 4; Mismatches 155; Indels 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
Bukaryota, Metazoa; Chordata; Craniata; Verte
Bukaryota; Metazoa; Chordata; Catarrhini; Hom
Mammalia; Butheria; Primates; Catarrhini; Hom
Li, W. B., Gruber, C., Jessee, J. and Polayes, D.
Full-length cDNA libraries and normalization
Unpublished (2001)
                                                                                                                                                                                                                     1015 TCTTCCACTGTTGCCTGAACCCCATCCTCT 1044
                                                                                                                                                                                                                                                                          1004 rrcrrcacreratereraaaccearcrear 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BX418530
BX418530.1 GI:30658606
EST.
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
les 823; Conserv
895
                                                                                                          955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                          RESULT 10
BX418530
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
```

a

8 %

ò 셤 us-09-367-052-1.rst

```
1. .1201
| organism="HOmo sapiens"
| wol_type="mRNA"
| wol_type="mRNA"
| /wol_type="mRNA"
| /wol_type="mRNA"
| /wol_type="mRNA"
| /wol_type="meanth" / wol_tise="meanth"
| /woll_lin=="mands CELL LINE"
| /clone_lib="mands CELL LINE"
| /clone_lib="meanth" / was primed with a NotI-oligo(dT) primer: Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and ECORV sites of the pCMVSPORT 6 vector.
                                                                                                                                                                                                                                                                                                                       EST 22-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            284
599 GTCAGGCAGGAGACATCAGTCAGGGAATGACAGGTACTTCTGTGACCGGCTTACCCGA 658
                                                                                                                                                                                                                                                                                                                    BX462182
BX462182 Homo sapiens B CELLS (RAMOS CELL LINE) Homo sapiens CDNA CLONE CSODGO03YO19 5-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 1201)
Li, W.B., Gruber, C., Jessee, J. and Polayes, D.
Full-length cDNA libraries and normalization
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genoscope - Centre National de Sequencage
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
Bail: sequenceope.cns.fr, web: www.genoscope.cns.fr
Invitrogen. This sequence belongs to sequence cluster 1272.r For nore information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODG003AH10QP1&cluster=1272.r. Contact :
Feng Liang Email: fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODG003AH10QP1.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            225 GTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                              714 GAIAGCUGIGGAIGGIGGIGITICAAITICCAGCAIATAANGGIGGGTCICAICCIG
                                                                                                                             TA---GCTGTGGATGGGGGG-TTCAACTCCAGCATATAAGGGGGTCCATCCTGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1201;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      y Match
Local Similarity 78.0%; Pred. No. 9.7e-63;
hes 785; Conservative 29; Mismatches 166; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Library was not normalized.
                                                                                                                                                                                                                                                                                                                                                                                                                      BX462182
BX462182.1 GI:31031389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S:
Matches 785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     165
                                                                                                                                                                  629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                              RESULT 12
BX462182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                           g
                                                                                              ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 GGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATGCCATGGCTGACTGGCTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTAC 473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | TATGIGGGGGTCTGGATCCCAGCCTCCTGACTATACCTGACTTCATCTTTGCCGAC 653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TATGIGGGGGTCIGGATCCCAGCCCTCCTGA-TATACCTGACTTCATCTTTGCCGAC 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   654 GTCAGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCC 713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone lib="NCI_CGAP_Maml"
/note="Organ: mammary; Vector: pCWV-SPORT6; Site 1: Sal1;
Site 2: Not1; Cloned unidirectionally. Primer: Öligo dT.
Library constructed by Life Technologies. Investigator
providing samples: Gilbert Smith, NIH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATAGGATCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAAT 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Actigica Acticia caga caractrata con a contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 AATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATGCCATGGCTGACTGGTACTTTGGGAAA-TTTTGTGTAAGGCTGTCCATATCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     114 GTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               174 GGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTGTCAACCTCTACAGCAGCGTTCTCATCTGGCCTTCATCAGCCTGGACCGGTACCTC
                                     Email: cgapbs-remail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://inage.llnl.gov
Plate: LLAM10254 row: o column: 07
High quality sequence stop: 628.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 Gradchgroccricrdaggcgrrrggrgcrccggraaccaccgcrgragagcgagr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      294 GGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGCGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       33.6%; Score 631.4; DB 12; Length 958; llarity 96.2%; Pred. No. 3.2e-63; Conservative 0; Mismatches 21; Indels 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:10090"
Clone="IMAGE:4457694"
/tissue_type="tumor, biopsy sample"
/dev stage="10" months, virgin"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Mus musculus"
/mol_type="mRNA"
/strain="FVB/N"
                Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                    1. .958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Simi
Matches 690;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
```

ò 엄 ò В 8 8

ò g ò 'n

셤

 $\stackrel{>}{\circ}$ 

엄

8 8 8

g ò QQ ò βp

8 8

원 상 원

\$ B \$

g à a ò 음 8

```
ua-09-36/-052-I.rst
```

Similarity Query Match Best Local Simil Matches 715; C 753 813 873 240 933 360 1053 --993 633 FEATURES ORIGIN ਨੇ g à qq ð g 8,8 8 8 8 ద ઠે ď A4182270 mRNA linear EST 06-JAN-1997 mt83f01.rl Soares mouse lymph node NbMLN Mus musculus cDNA clone IMAGE:636505 5' similar to gb:L06797 PROBABLE G PROTEIN-COUPLED RECEPTOR LCR1 HOMOLOG (HUMAN);, mRNA sequence. Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 793)
Marra,M., Hillier,L., Allen,M., Bowles,M., Dittrich,N., Dubuque,T., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and Waterston,R.
The WashU-HHMI Mouse EST Project 945 GICALCAAGCAAGGAIGIGACTICGAGAGCATIGIGCACAAGIGGAICTCCATCACAGAG 1004 749 809 884 869 944 870 TTCGCCTGTTGCCTGCCTTACTACATTGGGATMA-SATCGACTCCTTCATCCTCGGGAA 928 344 404 464 464 524 524 584 584 644 644 704 689 764 824 929 ATCATWAAGCAAGGGKGTGAGTTTRARA-MACTGTKCAWAATGGRTT----TCAYAMCG TTCTACCCCAATGACTTGTGGGGGGGGGGTTTCCAGTTTMAGCAMATMATGGTTGGCCTT AAGGKGGKCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCATC ATCCTGCCCGGCATCGTCATCTCTTACTGCATCATCATCTAAGCTGTCACAC TCCAAGGGCACCAGAAGGCAAAGGCCTCAAGACAACAGTCATCCTCATCCTAGCTTTC 345 GACAAGTACAGGCTGCACCTGTCAGTGGCCGNCCTCCTCTTTGTCATCACAGGCTTCCCTTC AAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATC TITIGCCGACGTCAGCCGGGGGACATCAGGGGGGATGACAGGTACATCTGTGACCGC CTTTACCCCGATAGCCTGTGGATGGTGGTTTTCAATTCCAGCATATAATGGTGGGTCTC 810 rechaddeschechdaddeschaddederenadadadadadadarenedradererre TITGCCTGCTGCCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGA GACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTC TGGGCAGTTGATGCCATGGCTGATGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCAT resecherrearecerescanacrestacrireseancriccinarecansecari ATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGAC 1005 GCCCTCGCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTT 1051
983 AGGCCYARCTTTYTTCMMTKTTTXACCCAHCYCTWTGTTTYTTT 1029 Mus musculus (house mouse) AA182270 AA182270.1 GI:1765810 EST. 345 405 405 465 525 525 585 585 645 645 705 069 294 750 825 885 285 RESULT 13 AA182270 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS

a

a ò g

ò

ద

à

Q

à q

à

TITLE JOURNAL

```
/tissue_type="lymph node"
/dev_ztge="4 weeks"
/lab_host="DH108"
/clone_lib="Soares mouse lymph node NbMLN"
/note="Organ: lymph node; Vector: pT7T3D-Pac (Pharmacia)
with a modified polylinker; Site_1: Not I; Site_2: Eco RI;
lst strand cDNA was primed with a Not I - oligo[dT) primer
[5/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCA 1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTC 1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 ATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGTATA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
Contact: Marra M/Mouse EST Project
WashU-HMI Mouse EST Project
WashU-HMI Mouse EST Project
WashIngton University School of MedicineP
444 Porset Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1810
Email: mouseest@watson.wustl.edu
Email: mouseest@watson.wustl.edu
This olone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
MGI:388497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        693 ATCTGTGACCCCCTTTACCCCGATAGCCTGGATGGTGGTGTTCAATTCCAGCATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGCTGTCACACTCCAAGGGCCACCAGAAGCGCCAAGGCCCTCAAGACGACAGTCATCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCCTAGCTTTCTTTGCCTGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCCTAGCTTTCTTTGCCTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAAGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 793;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        33.1%; Score 621.6; DB 9; Length ilarity 92.4%; Pred. No. 4.9e-62; Conservative 0; Mismatches 46; Indels
                                                                                                                                                                                                          Seg primer: -28M13 rev2 from Amersham
High quality sequence stop: 497.
Location/Qualifiers
                                                                                                                                                                                                                                                                    1. .793
/organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                    /db_xref="taxon:10090"
/clone="IMAGE:636505"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ag S
```

480 AG-CTCAAGATCCTTT-CAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCA 537 1173 GAATCCTCCAGTTTCACTCCAGCTAACCTTTTCGTATATATA		Mus musculus Eukaryota; Mt Mammalia; M 1 (bases 1 t Marra, M, Hil Geisel,S., Ku Schellenberg, Theising,B.	Waterston, M.  The WashU-HMI Mouse EST Project Unpublished (1996) Contact: Marra M/Mouse EST Project WashU-HMI Mouse EST Project WashU-HMI Wouse EST Project WashU-HMI Wouse EST Project WashU-HMI Wouse EST Project WashU-HMI Wouse EST Project WashU-HMI Mouse EST Project Faris 18 28 1800 Faris 18 28 1800 Faris 18 28 1810 Faris 18 28 1810 Faris 19 28 1810 Faris Autoseest@watson.wustl.edu This clone is available royalty-free through LLML ; contact the	IMAGE MGI:6 Seq p Seq p High	/lab host="DH10B" /clone_lib="Barsterad mouse myotubes MPLRBS" /clone_lib="Barsterad mouse myotubes MPLRBS" /note="Vector: pT7T3D-Pac (Pharmacia) with a modified polylinker; Site 1: EcoRI; Site 2: NotI; late strand cDNA was primed with a Not I = oligo(dr) primer [s' rgtTACGAATCTGAAGTGGGAGCGCCCCTTTTTTTTTTTTTT
8 6 8 6 8 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8	RESULT 14 AA816049 LOCUS DEFINITION ACCESSION KEYWORDS SOURCE SOURCE	ORGANISM REFERENCE AUTHORS	TITLE JOURNAL COMMENT	FEATURES SOUIC	

### characteristic muscle proteins

ORIGIN

BX362477 Homo sapiens T CELLS (JURKAT CELL LINE) COT 10-NORMALIZED
Homo sapiens CDNA clone CSOBJO1SYP09 5-PRIME, mRNA sequence.
BX362477.1 GI:30380640
S EST.
Homo sapiens (human)
ISM Homo sapiens (human)
Homo sapiens (human)
S EST.
Homo sapiens (human)
ISM Homo sapiens (human)
S EST.
Homo sapiens (human)
ISM Homo sapiens (human)
ISM Homo sapiens (human)
ISM Homo sapiens (human)
ISM Homo sapiens (human)
ISM Homo sapiens (human)
ISM Homo sapiens (human)
ISM Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapiens (human)
IND Homo sapien 988 GGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATG 1047 1108 GCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGGGGAACACTCTTCCGTCTCCACGG 1167 1228 ATATATATATGATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAGACTGACC 1287 ô 133 CCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGT 313 314 GGATCTCCATCACAGAGAGCCCTCGCCTTCCACTGTTGCCTGAACCCCATCCTCTATG 373 493 194 TCCTCATCCTAGCTTTCTTTGCCTGCTGCCATATTATGTGGGGGATCAGCATCAGCT 253 747 807 867 927 CCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGGAGTTGTGCACAAGT 987 73 434 GCTCCAGCTCGAAGATCCTTTCCAAAGGAAAGCGGGGGTGGACACTCTTCCGTCTCCACGG 868 TCCTCAACCTTTCTTTGCCTGCTGCTGCCATATTATGTGGGGATCAGCATCACACT 494 AGTCAGAATCCTCCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATATAATATAT 748 ATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGCATCATCA 688 GGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTCAATTCCAGC 14 GGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGC 808 TCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACGACAGTCA Gaps .. O Length 639; Query Match
33.1%; Score 621.2; DB 9; Length 6
Best Local Similarity 99.5%; Pred. No. 6.3e-62;
Matches 623; Conservative 0; Mismatches 3; Indels 928 254 1288 RESULT 15 BX362477 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL COMMENT ∂ 6 ठे वि ठे 음 중 음 66666 8 S 셤 ठे 엄상 g ò

ñ 109 302 422 469 529 662 169 169 182 229 242 289 409 542 649 127 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 349 362 482 602 709 707 /organism="Homo sapiens"
/mol\_type="mRNA"
/db\_xref="teaxon:9606"
/cll\_type="CEDLS (JURKAT CELL LINE) COT 10-NORMALIZED"
/cell\_type="T CELLS (JURKAT"
/cell\_the="JURKAT"
/clone\_lib="Homo sapiens T CELLS (JURKAT CELL LINE) COT
10-NORMALIZED" /note="1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and BCOR V sites of the pCNVSPORT 6 vector. Library was normalized." to sequence cluster 1272.r For er, see Invitrogen. This sequence belongs to sequence cluster 1272.r For more information about this cluster, see http://www.genoscope.ns.fr/
thtp://www.genoscope.ns.fr/
cgi-bin/cluster.cgi?seq=CSOD015CH05Qp1&cluster=1272.r. Contact
Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenu Genoscope sequence ID : CSOD015CH05QP1.
Location/Qualifiers GTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGC 603 GGTCTATGTTGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGACTTCATCTTGC CCCCGATAGCCTGTGGATGGTGTTTCAATTTCAGCATATAATGGTGGGTCTCATCTT 183 AATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAATGCTAA TTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCATCATAACTGGCATTGTGGG 303 CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAACTGAGAAGCATGACGGACAA AGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCAT CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA CGACGTCAGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTA GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGGCTGTAGAGC GCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAAC 110 GAGIGITGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA TITCAATAGGAICTICCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGG 410 AGTIGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT 590 AGTOTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGC caace------rcacrandecacardacedararicrererered AGTGGGGTCTGGAGACTATGACTCCAAGAACCCTGCTTCCGGGATGAAAACGTCCA GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGC Gaps Match
Local Similarity 82.5%; Pred. No. 4.7e-62;
les 738; Conservative 4; Mismatches 133; Indels 20; Query Match Best Local S: Matches 738 710 20 68 170 230 243 290 350 363 423 470 483 530 543 650 663 FEATURES ORIGIN

8 8 8 g  $\dot{\delta}$ 6

g ò 엄 ò g ò d 8 g à g ò g ò d

889 887 829 827 767 828 GGGCCACCAGAAGCGCAAAGGCCCTCAAGACCACAGACATCCTCATCCTCGGCTTTCTTCGC CCCCAATGACTTGTGGGTTGTTGTTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCT 768 eccreeratrercerererereratrecatratearerecaaecrereaa gooogecarcorcarcorcarantacaecarcarcarcaraterargacaecaecaea 942 890 CTGCTGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGA 944 CTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCXYCTKGSAA 708 770 830 888 g ò qq à ò

Search completed: May 17, 2004, 16:08:53 Job time : 5439.72 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

using sw model - protein search, OM protein ; Search time 134 Seconds (without alignments) 756.974 Million cell updates/sec May 17, 2004, 16:09:21 on: Run

Title: Perfect score:

US-09-367-052-2 1867 1 MEPISVSIXTSDNYSEEVGS.......KRGGHSSVSTESESSSFHSS 359

Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

1586107 segs, 282547505 residues Searched: Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

A\_Geneseq\_29Jan04:\*

1: geneseqp1980s:\*

2: geneseqp2000s:\*

4: geneseqp2001s:\*

5: geneseqp2001s:\*

6: geneseqp2003as:\*

7: geneseqp2003as:\*

8: geneseqp2003as:\* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

•		de			SUMMARIES	
Result No.	Score	Query	Length	DB	ΩI	Description
٦	00	100.0	L/G	~	W647	477
8	φ	100.0	S	~	AAY39994	Aay39994 Mouse CXC
٣	44,	93.4	4	7	ADE63141	Ade63141 Rat Prote
4	-	93.4	4	7	ADE63145	Ade63145 Rat Prote
Ŋ	1678.5	89.9	352	~	AAR68812	Aar68812 Human mon
9	78.	89.9	ťΩ	N	AAR80757	Aar80757 Chemokine
7	78.	σ,	S	7	AAY39993	Aay39993 Human CXC
ω	•	89.9	IU)	m	AAY52507	Aay52507 Human CXC
σ	78.	ο,	រប	4	AAE06690	Aae06690 Human neu
10	78,	ď.	Ŋ	4	AAG79088	Aag79088 Amino aci
77	78.	σ,	'n	4	AAG80123	Aag80123 Human CXC
12	78.	ο,	'n	'n	AA014003	1003
133	78.	ω.	n	ហ	265	2651 Human
14	78.	ο,	ĽΩ	'n	297	2977
15	78.	σ.	S	S	306	5 Human
16	78.	ο,	S	'n	ABP65183 ·	Abp65183 Hypoxia-r
11	78.	ω.	ഗ	Ŋ	AAG78471	3471 CXCR4
₩	78.	φ.	S	ø	ABP96794	5794 Human
19	78.	φ.	S	9	ABU03495	Abu03495 Angiogene
20	78.	φ.	S	ω	ABR58581	Abr58581 Human can
21	78.	e,	ហ	Ø	ABP97733	Abp97733 Amino aci
22	78.	e,	ΠĴ	9	ABP81796	Abp81796 Human CXC
23	78.	ω.	ហ	۲	364	Adc98646 Human CXC
24	78,	σ,	w	7	ADE63147	Ade63147 Human Pro
25	678,	φ.	IJ	7	ADE63143	Ade63143 Human Pro

Abb56346 Non-endog	- N	Abu79148 Chemokine	Abu79080 Human che	Aar27792 New plate	Aaw48734 Human RM3	Aab21698 Human 7TM	Aau91240 Human 7 t	Aar53753 Seven tra	Adc86235 Human GPC	Aaw54371 Human IP-	Aay90614 Human G p	Aag80122 Human CXC	Abp81795 Human CXC	Aae38602 Human C-X	Adc22539 Human G p	Aay50129 Human che	Adc46963 Human CXC	Aaw69999 Rodent ch	Aay90648 Human mut
ABB56346	AAW97362	ABU79148	ABU79080	AAR27792	AAW48734	AAB21698	AAU91240	AAR53753	ADC86235	AAW54371	AAY90614	AAG80122	ABP81795	AAE38602	ADC22539	AAY50129	ADC46963	AAW69999	AAY90648
4	7	9	9	N	~	ന	ß	N	7	N	ო	4	9	^	٢	N	7	N	ო
352	356	S	352	ហ	m	337	337	m	0	v	368	v	9	φ	368	~			368
9.68	9.68	89.5	89.5	89.3	86.9	86.9	86.9	86.3	51.9	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.1	31.1
1672.5	1672.5	1670.5	1670.5	1667.5	1621.5	1621.5		1611.5	ത		584	584	584	584	584	584	584	581.5	580
26	27	60 C3	29	30	31	32	33	34	9	36	37	33	9	40	41	42	43	44	45

#### ALIGNMENTS

Mouse; CXC chemokine receptor; pre-B cell line DW34; CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1; HIV infection; screening; inhibitor; AIDS. ż Yoshida Tachibana K, Iizasa H, AAW64778 standard; protein; 359 AA. murine CXC chemokine receptor 97WO-JP000299. 97WO-JP000299. 20-NOV-1998 (first entry) Kishimoto T, Nagasawa T, Nakajima T, Yoshie O; (SHIO ) SHIONOGI & CO LTD. WPI; 1998-447232/38. N-PSDB; AAV46370. WO9835035-A1 07-FEB-1997; 07-FEB-1997; 13-AUG-1998. AAW64778; Mus sp. 

Mouse CXC chemokine receptor binding to PSSF/SDF-1 pre-B cell stimulatory factor - is useful for screening of potential HIV infection and AIDS inhibitors.

Claim 1; Page 54-56; 76pp; Japanese.

The present sequence represents a murine CXC chemokine receptor which binds to the mouse CXC chemokine pre-B cell stimulatory factor PBSF/SDF-I. The nucleic acid is isolated from mouse pre-B cell line DW34. The receptor and cells expressing it can be used in the study and mapping of the mechanism of HIV infection and in screening of potential inhibitors of HIV infection and the development of AIDS

Sequence 359 AA;

Query Match

Length 359; DB 2; 100.0%; Score 1867;

This sequence is the mouse CXCR4 protein. The invention relates to remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockcut mouse, it becomes possible to prepare remedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation ö 240 VILVWGYQKKIRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTV 120 QGDISQGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQ 240 KRKALKITULILIAFFACHLPYYVGISIDSFILLGVIKQGCDFBSIVHKMISITBALAFF 300 VILVMGYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTV 120 NLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVS 180 NLYSSVLILAFISLDRYLAIVHATNSQRPRKLLABKAVYVGVWIPALLLTIPDFIFADVS 180 KRKALKTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFF 300 9 9 HCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 HCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 QGDISQGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQ MEPISVSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFLTGIVGNGL Gaps CXCR4, mouse, neovascularisation, inhibitor, solid cancer, therapy, tissue repairing agent, vascularisation. . 0 inhibiting Indels CXCR4-potentiating agents and methods useful for neovascularization, and treating solid cancers. Pred. No. 9.7e-215; Mismatches 0; Disclosure; Page 49-50; 63pp; Japanese. Tachibana AAY39994 standard; protein; 359 AA 100.001 14 (80.001 Mouse CXCR4 protein sequence, 99WO-JP001448 98JP-00095448 (first entry) Kishimoto T, Nagasawa T, (CHUS ) CHUGAI SEIYAKU KK. (KISH/) KISHIMOTO T. Similarity 100. WPI; 1999-591042/50. N-PSDB; AAZ27611. 23-MAR-1999; 24-MAR-1998; WO9948528-A1 16-DEC-1999 30-SEP-1999 359; AAY39994; 61 121 121 181 241 241 181 301 301 Mus sp dO ò 셤 ઠે g ò g ઠ 셤 ò g

```
ô
                                                                                                                                                                                                                                                                                                                                        121 NLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLITIPDFIFADVS 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KRKALKTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFF 300
                                                                                                                                                                     9
                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tissue; gene therapy, spinal segmental nerve injury; n injury; CCI; spared nerve injury; SNI; Chung.
                                                                                                                                                                                                                           61 VILVMGYOKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTV
                                                                                                                                                                                                                                                                                                                                                                                     121 NIYSSVLILAFISLDAYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 KRKALKTTVILILAFFACKLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFF
                                                                                                                                                   1 MEDISVSIXTSDNYSBEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGL
                                                                                                                                                                                                                                                                         61 VILVMGYQKKLRSMTDKYRLHLSVABLLFVITLFFWAVDAMADWYFGKFLCKAVHIIYTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 QGDISQGDDRYICDRLYPDSLWMVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQ
                                                                                                                  1 MEPISVSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                            ..
0
                                                            Indels
Query Match
100.0%; Score 1867; DB 2;
Best Local Similarity 100.0%; Pred. No. 9.7e-215;
Matches 359; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Costigan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rat Protein 008565, SEQ ID NO 9076.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADE63141 standard; protein; 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ᆪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-AUG-2001; 2001US-0312147P.
01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    constriction injury;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-AUG-2002; 2002WO-US025765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Befort
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HOSPITAL CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page; 1017pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Woolf C, D'urso D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-268312/26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            neuronal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GEHO ) GEN HOSP:
(FARB ) BAYER AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #02003016475-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENBANK; 008565.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADE63141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          chronic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADE63141
ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE6
IND ADE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
                                                                                                                                                                     Dp
                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

a establish

Length 359;

and tissue repairing agents containing as the active ingredient substance capable of potentiating CXCR4. It is also possible to methods for treatment with the use of these remedies

Sequence 359 AA

SKSSS

WO2003016475-A2

The invention discloses a composition comprising two or more isolated rate or human polymucleotides or a polymucleotide which represents a fragment, derivative or allelic variation of the mucleic acid sequence. Also claimed are a vector comprising the movel polymucleotide, a host cell comprising the vector, a method for identifying a mucleotide sequence which is differentially regulated in an animal subjected to pain and a ckit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polymucleotide sequence that is differentially expressed in meuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polymucleotide sequence which is differentially compound for identifying a compound that regulates the activity of one or more of the polymucleotides, a method for producing a pharmaceutical composition, a compound that regulates the activity of one or more of the polymucleotides a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more of the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more of the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more of the cyclication, and spared nerve injury (CMI) in an animal (e.g. spin) (e.g. spin) (e.g. spin) (e.g. spin) (e.g. spin) (e.g. spin) (e.g. spin) (e.g. spin) segmental nerve injury (CMI) in an animal (e.g. spin) (e.g. spin) segmental nerve injury (CMI) in an animal (e.g. spin) (e.g. spin) segmental nerve injury (SMI)) in an animal (e.g. spin) of the specification) which is differentially expressed during pain. Note: CT the sequence data for this patent did not form part of the printed composition, but was obtained in electronic form directly from WIPO at fip. whipo.int/pub/published\_potence. 

Sequence 349 AA;

120 245 235 305 295 125 126 VLILAFISLDRYLAIVHAINSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185 09 176 QGDGRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL GYOKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITBALAFFHCCLN 236 KTTVILILAFPACWLPYYVGISIDSFILLEVIKQGCEFESVVHKWISITEALAFFHCCLN GYOKKIRSMIDKYRLHLSVADLLFVIILPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVW 5; Gaps PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 349 306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 Query Match Best Local Similarity 95.5%; Pred. No. 4.7e-200; Matches 338; Conservative 4; Mismatches 7; Indels 5; 99 8 8 8 g ò g ద 8 8 ò à

ADE63145 standard; protein; 349 AA

Rat Protein 008565, SEQ ID NO 9080. 29-JAN-2004 (first entry) ADE63145; 

Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.

235

Rattus norvegicus.

The invention discloses a composition comprising two or more isolated rat or human polymucleotides or a polymucleotide which represents a fragment, or human polymucleotides or a polymucleotide and sequence. Also claimed are a vector comprising the novel polymucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a chart increases or decreases the expression of the polymucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polymucleotide sequence which is differentially a polymucleotide sequence which is differentially expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the composition, a method for identifying a compound useful in treating specification, a method for identifying a compound useful in treating composition comprising the one or more of the polypeptides given in the specification, a method for identifying a compound useful in treating complypeptides or their antibodies. The polymucleotide or the compound that composition comprising the one or more compound that regulates its activity is useful for preparing a medicament for treating complypeptides or their antibodies. The polymucleotide or the compound that injury (CIUI) and spared nerve injury (SINI) in an animal (e.g. spinal segmental nerve injury (SINI) in an animal (e.g. spinal segmental nerve injury (SINI) in an animal (e.g. spinal personned nerve injury (SINI) in an animal (e.g. spinal personned nerve injury (SINI) in an animal (e.g. spinal personned nerve injury (SINI) in an animal (e.g. spinal personned nerve injury (SINI) in an animal (e.g. spinal personned nerve injury (SINI) in a part of the profile or this patent did not form part of the profile or this patent did not form to com 185 245 125 65 9 New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal. GYOKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYS\$ 61 GYQKKURSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 126 VILLARISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 186 QGDDRYICDRLYPDSLWMVVFQFOHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 6 VSIYISDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 5; Gaps Query Match 93.4%; Score 1744.5; DB 7; Length 349; Best Local Similarity 95.5%; Pred. No. 4.7e-200; Matches 338; Conservative 4; Mismatches 7; Indels 5; Costigan M; Claim 1; Page; 1017pp; English. Befort K, 14-AUG-2001; 2001US-0312147P. 01-NOV-2001; 2001US-0346382P. 26-NOV-2001; 2001US-0333347P. 14-AUG-2002; 2002WO-US025765 (GEHO ) GEN HOSPITAL CORP. (FARB ) BAYER AG. D'urso D, WPI; 2003-268312/26. GENBANK; 008565. Sequence 349 AA; 27-FEB-2003 99 Woolf C, g g 8 δ g à

298

305

245

us-09-367-052-2.rag

```
Antibodies directed against the interleukin-8 receptor B can be used to treat or prevent inflammation e.g. psoriasis, dermatitis, rheumatoid arthritis and particularly inflammatory bowel disease and chronic lung inflammation. When immobilised, these antibodies may be used to detect interleukin-8 receptor B expression in cells and tissues and for affinity additional chemokine superfamily receptor which was identified by probing lamda libraries of genomic DNA from a human monocyte-like cell line (L-60) and human peripheral blood lymphocytes using a large fragment of the interleukin-8 type A receptor DNA (see AAQ99006). (Updated on 25-MAR-2003 to correct PF field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Interleukin, IL-8; inflammation; psoriasis; dermatitis;
rheumatoid arthritis; inflammatory bowel disease;
chronic lung inflammation; treatment; antibody; affinity purification;
                        239 KTTVILILAFFACWLPYYIGISIDSFILLEIIKOGCEFENTVHKWISITEALAFFHCCLN
186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                         246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New antibodies against interleukin 8 type B receptor - used to treat prevent inflammation, also for detecting receptor expression and purificn.
                                                                                                                                                                                   306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                            299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ري
در
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match

89.9%; Score 1678.5; DB 2; Length 352;
Best Local Similarity 90.1%; Pred. No. 4e-192;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 2; Col 45-48; 62pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hebert
                                                                                                                                                                                                                                                                                                                                                 AAR80757 standard, protein, 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chemokine superfamily receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91US-00677211
                                                                                                                                                                                                                                                                                                                                                                                                                                                (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (HEBE/) HEBERT C.
(CHUN/) CHUNTHARAPAI A.
(KIMK/) KIM K J.
(LEEJ/) LEE J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1995-283151/37.
N-PSDB; AAQ99007.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chuntharapai A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seguence 352 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-MAR-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-AUG-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                             25-MAR-2003
26-MAR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US5440021-A.
                                                                                                                                                                                                                                                                                                                                                                                                AAR80757;
                                                                                                                                                                                                                                                                                                    RESULT 6

AAR 80 757

DAR 80 757

DAR 80 757

DAR 80 757

DAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 757

AAR 80 7
                                  g
                                                                                                                          g
                                                                                                                                                                                   ò
                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       125
                                          2 PF4AR members were identified by probing lambda libraries from human monoclyte-like cell line HL-60 and human peripheral blood lymphocytes using a large fragment of IL-8 receptor DNA (full sequence given in AAQ80520). The nucleotide sequences of the 2 PF4ARs are given in AAQ80521 and AAQ80522, and their respective amino acid sequences in AAR68812 and AAR68813. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Treatment of inflammatory disorders - by administering an antibody capable of binding a platelet factor 4 superfamily receptor polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGMGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               124 VLILAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVMIPALLLIIPDFIFANV----S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLITIPDFIFADVSQGDIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5; Gaps
                                                                                                                                           PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Interleukin-8 receptor; IL-8 receptor; PF4AR; platelet factor superfamily receptor; monocyte; chemotactic; inflammation; inflammatory disease; arthritis; emphysema; cystic; fibrosis; colitis; bronchitis; meningitis; therapeutic.
                                                                                                                PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           89.9%; Score 1678.5; DB 2; Length 352; 90.1%; Pred. No. 4e-192; ive 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure, Page 54-56; 83pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hebert C,
                                                                                                                                                                                                                                                                             AAR68812 standard; protein; 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93US-00076093
                                                                                                                                                                                                                                                                                                                                                                          (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 90.18
Matches 319; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chuntharapai A, Lee J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                Human monocyte PF4AR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1995-036114/05.
N-PSDB; AAQ80521.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 352 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-JUN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-JUN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9428931-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-DEC-1994.
                                                                                                                                                                                                                                                                                                                                                                       25-MAR-2003
18-JUL-1995
                                                                236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   126
                                                                                                             306
                                                                                                                                                                                                                                                                                                                             AAR68812;
                                                                                                                                                                                                                              ö
                                                         셤
                                                                                                   8
                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

Ö

Gaps

Sequence 352 AA;

X S

S

us-09-367-052-2.rag

```
178
                                                                                                                                                                    238
                                                                                                                                                                                                                 298
                                                                        123
                                                                                                                                             245
                                                GYOKKIRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                             VIJIAFISLDRYLAIVHATNSQRPRKLLABKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                                                                          246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
     65
                         63
GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                       239 KITVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN
                                                                                                                                          186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                        PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                     PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
                                                                                                                                                                                                                                                                                                                          Ą
                                                                                                                                                                                                                                                                                                                         AAY39993 standard; protein; 352
                                                                                                                                                                                                                                                                                                                                                                        16-DEC-1999
  Ġ
                                                99
                                                                      64
                                                                                              126
                                                                                                                                                                                                                                        306
                                                                                                                                                                                                                                                               299
                                                                                                                                                                                                                                                                                                                                                AAY39993;
                                                                                                                                                                                                                                                                                                               AAY39993
                                                                                                                                                                                                                                                                                                  RESULT
                 ద
                                             ઠે
                                                                Д
                                                                                             ઠે
                                                                                                            d
                                                                                                                                         8
                                                                                                                                                            S
                                                                                                                                                                                       à
                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                       8
```

Human CXCR4 protein sequence. 

CXCR4; human; neovascularisation; inhibitor; solid cancer; therapy; tissue repairing agent; vascularisation:

Homo sapiens

W09948528-A1

30-SEP-1999

99WO-JP001448 23-MAR-1999; 98JP-00095448 24-MAR-1998;

(CHUS ) CHUGAL SELYAKU KK. (KISH/) KISHIMOTO T.

Kishimoto T, Nagasawa T,

Tachibana K;

WPI; 1999-591042/50. N-PSDB; AAZ27610.

CXCR4-potentiating agents and methods useful for inhibiting neovascularization, and treating solid cancers.

Disclosure; Page 47-48; 63pp; Japanese.

This sequence is the human CXCR4 protein. The invention relates to remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockout mouse, it becomes possible to prepare remedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of gotentiating CXCR4. It is also possible to establish methods for treatment with the use of these remedies

Use of CXCR-4 and SDF-1 as markers for diagnosis and treatment of e.g. tumors, degenerative disorders, growth deficiencies, hyper- and

ä 125 123 185 178 245 246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305 65 63 CXC-chemokine receptor-4, CXCR-4, stromal cell derived factor-1, SDF-1, ligand, chemotaxis; inflammation, G-protein-coupled receptor; signal transduction, CD4-independent; HIV-1; infection, proliferation, transformation, tumoringenesis, cancer; tumour; overexpression; breast, colon; lung; melanoma; glioblascoma; inhibition; growth arrest, diagnosis; prognosis; marker; proliferative disorders; antisense; therapy; treatment; premalignant condition; hyperrophy; degenerative disorder; Parkinson's disease; Alzheimer's disease; growth deficiency; hypoproliferative disorder; physical trauma; lesion; ischaemia; wound. 4 ISIYTSDNYTEEMGSGDYDSMXEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM GYOKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 64 GYQKKIRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNPLCKAVHVIYTVNLYSS 239 KTTVILILAFPACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN QGDDRYICDRLYPDSLWMVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL Gaps PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS S) 89.9%; Score 1678.5; DB 2; Length 352; 90.1%; Pred. No. 4e-192; ive 19; Mismatches 11; Indels 5; Human CXC-chemokine receptor-4 (CXCR-4). Ź (NWBI-) NORTHWEST BIOTHERAPEUTICS Boynton AL, Sehgal A; AAY52507 standard; protein; 352 99WO-US007431 98US-0079916P 98US-0104656P Query Match Best Local Similarity 90.1% Matches 319; Conservative 22-FEB-2000 (first entry) WPI; 2000-052634/04. N-PSDB; AAZ38553. 29-MAR-1999; 30-MAR-1998; 16-OCT-1998; Homo sapiens WO9950461-A1 Murphy GP, 99 126 306 AAY52507; 186 299 RESULT 8 AAY52507 à g ò g ò 임 જે a ò 셤 ò HANDER Y PRODUCTION OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT OF THE PRODUCT O

The may is is:54:59

us-uy-se/-us2-2.rag

hypoproliferative disorders, physical trauma, lesions and wounds

Disclosure; Fig 14; 138pp; English  $\texttt{\texttt{H}} \overset{\mathsf{A}}{\times} \overset{\mathsf{A}}{\times} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee} \overset{\mathsf{A}}{\vee}$ 

This sequence represents CXC-chemokine receptor-4 (CXCR-4). Chemokine receptors play an important role in the chemotaxis of T-cells and receptors play an important role in the chemotaxis of T-cells and phagocytic cells to areas of inflammation. CXCR-4 is a member of the G-protein-coupled receptor family, which is involved in signal carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the carabidates of the ca

Sequence 352 AA;

5; Gaps 89.9%; Score 1678.5; DB 3; Length 352; 90.1%; Pred. No. 4e-192; ive 19; Mismatches 11; Indels 5; Query Match Best Local Similarity 90.1% Matches 319; Conservative

6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM

65

GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125 123 4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM 63 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 99 64 유 à g ò

178 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185 245 124 VLILAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLLTIPDFIFANV----S QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 126 186 g à

g ò g õ

PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 306 299

RESULT 9
AAE06690
ID AAE0

AAE06690 standard; protein; 352 AA

Human neuropeptide Y (NPY) Y3 receptor. (first entry) 16-OCT-2001 

Human, neuropeptide Y, NPY, bone disease, bone mass, gene therapy; crebrospinal fluid, CSF, inositol phosphate, IP, Paget's disease, fracture; extracellular signal-regulated kinase, ERK; osteoporosis, osteopenia, bone metastasis, neurotransmitter; osteogenic;

Homo sapiens

WO200153477-A1.

26-JUL-2001.

22-JAN-2001; 2001WO-US002040.

20-JAN-2000; 2000US-00489872.

(BAYU ) BAYLOR COLLEGE MEDICINE (AMLI/) AMLING M.

Ducy Amling M, Karsenty G,

WPI; 2001-488709/53. N-PSDB; AAD12801.

Treating or preventing reduced bone mass, e.g. osteoporosis, by reducing the level of neuropeptide Y activity in blood or cerebrospinal fluid.

Example 7; Page 85; 102pp; English.

The present invention relates to a method for treatment or prevention of bone diseases characterised by loss of bone mass, comprises administering to a mammal a compound that lowers the level of neuropeptide Y (NPY) in the serum or cerebrospinal fillid (CSF) or a compound that lowers the level of inositol phosphate (IP) or extracellular signal-regulated kinase (Herapy) or prevent osteoporais, osteopenia or Paget's disease, but may also be used e.g., in cases of fractures or bone metastases. These diseases may also be diagnosed by detecting elevated NPY levels, including monitoring of treatment, assessing efficacy of compounds in sequence is a human NPY %3 receptor

Sequence 352 AA;

5; 89.9%; Score 1678.5; DB 4; Length 352; 90.1%; Pred. No. 4e-192; ive 19; Mismatches 11; Indels 5; Best Local Similarity 90.1% Matches 319; Conservative Query Match

ò 셤 g ò

ò

245 186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL

305 KITVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 246

ò

298

KTIVILILAFFACWLPXYVGISIDSFILLGVIKQGCDFESIVHKWISITFALAFFHCCLN 305

PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESBSSSFHSS 359 

306 299

 $\delta$ 

셤

QGDDRYICDRLYPDSLWMVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL

186

ò 8

179

124

246

ઠે g

The specification describes an antibody which is specific for an antigenic fragment of gp120. This antigenic fragment binds to DC-SIGN or is exposed upon gp120 binding of DC-SIGN due to concomitant conformational change. DC-SIGN is a receptor that is specifically expressed on dendritic cells and facilitates infection of T lymphocytes with HIV. DC-SIGN is identical to a HIV-1 gp120-binding C-type lectin. DC-SIGN binds ICAM-3 (which is expressed constitutively on T lymphocytes) with high affinity. The antibody of the invention inhibits the trans enhancement of HIV entry into a T cell or macrophage facilitated by dendritic cells. The antibody is useful to treat or prevent HIV infection. The present sequence represents a human CXCR4 procein, which is a translocation promoting agent that interacts with CD4. This receptor functions in HIV-1 entry into cells KITVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 298 An antibody for the treatment or prevention of HIV-infection comprises a gpl20 portion which binds to DC-SIGN or is exposed upon gpl20 binding of DC-SIGN due to concomitant conformational change. Human, receptor, DC-SIGN, dendritic cell, T lymphocyte, HIV, gpl20, C-type lectin, ICAM3, HIV entry, T cell, macrophage, HIV infection, CXCR4. 306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352 Geijtenbeek T; Amino acid sequence of human CXCR4 protein. Disclosure, Page 117-118; 131pp; English Van Kooyk Y, Ą AAG79088 standard; protein; 352 28-FEB-2001; 2001WO-US006322. 02-MAR-2000; 2000US-00517605 (UYNY ) UNIV NEW YORK STATE. (UYNI-) UNIV NIJMEGEN. (first entry) Littman DR, Kwon D, WPI; 2001-602565/68. Sequence 352 AA; WO200164752-A2 Homo sapiens. 10-DEC-2001 07-SEP-2001 239 AAG79088; ò 셤

Diagnostic agent containing two or more receptor-specific ligands, useful for detecting tumors, inflammation etc., also therapeutic use of ligand inhibitors. Chemokine; tumour diagnosis; colorectal; prostatic; organ rejection; inflammation; autoimmune disease; metastasis; bronchial asthma; lupus; chronito bowel inflammation; rheumatoid arthritis; cytostatic; antiinflammatory; autiasthmatic; immunosuppressive; dermatological; antirheumatic; antiarthritic. Spodsberg N; Heitland A, Disclosure; Page 12; 26pp; German. AAG80123 standard; protein; 352 31-MAR-2000; 2000DE-01016013. 02-APR-2001; 2001WO-EP003708 Դ, (first entry) (IPFP-) IPF PHARM GMBH (FORS/) FORSSMANN U. Forssmann W, Adermann WPI; 2001-626256/72. Human CXCR4 protein. WO200172830-A2. Homo sapiens. 17-JAN-2002 04-OCT-2001 AAG80123; AAG80123 

This invention describes a novel diagnostic agent (A) comprising at least two different ligands (I) for receptors (II) that are implicated in disease. (A) are used for the diagnosis of tumors (especially colorectal or prostatic), organ rejection, inflammation and autoimmune diseases. Also inhibitors of (I) are used therapeutically against tumors (and their metastases), inflammation (particularly bronchial asthma or chronic bowel inflammation), or autoimmune diseases (rheumatoid arthritis or lupus), where the (cardio) vascular, lymphatic, respiratory, nervous, digestive, endocrine, motor or urogenital systems or skin are affected, and bone on the products of the invention are chemokine derivatives which have cytostatic, antiinflammatory, antiasthmatic, immunosuppressive, dermatological, antiinteumator, antiarthritic. Chemokines act on specific tumor and inflammatory calls through a constellation of these cells. Add80128 represent human chemokine fragments used to illustrate the method of the invention Sequence 352 AA

Ä

2,

Query Match
Best Local Similarity 90.1%; Pred. No. 4e-192;
Matches 319; Conservative 19; Mismatches 11; Indels 5;

65 63 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAWADWYFGKFLCKAVHIIYTVNLYSS 125 126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185

99

ò

g

음

à

4 ISIYTSDNYTEEMGSGDYDSWKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVW 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM

```
Region
Region
                        Region
                                                                                                                                                             Region
                                      ij,
                                                                                                                                                                                                                           KITVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITBALAFFHCCLN 298
                                                                                                                  GYÇKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                       KITVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFBSIVHKWISITEALAFFHCCLN 305
                                                                                                                                             123
                                                                                                                                                                         VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLITIPDFIFADVSQGDIS 185
                                                                65
                                                                                VSIYTSDNYSEEVGSGDYDSNKEPCPRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                        Gaps
                                                                                                                                                                                                                                                                                                                                                    PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                      ς.
          89.9%; Score 1678.5; DB 4; Length 352;
90.1%; Pred. No. 4e-192;
live 19; Mismatches 11; Indels 5;
              Query Match
Best Local Similarity 90.1%
Matches 319; Conservative
                                                                                             4
                                                                                                                                                64
                                                                                                                                                                          126
                                                                                                                                                                                                                               186
                                                                                                                                                                                                                                                         179
                                                                                                                                                                                                                                                                                   246
                                                                                                                                                                                                                                                                                                              239
                                                                                                                                                                                                                                                                                                                                         306
                                                                   ø
                                                                                                                      99
```

g

à

g à 9 ò g  $\delta$ a ò a

à

Cysteine-X-Cysteine Chemokine Receptor 4; CXCR4 binding peptide; chemoattractant cytokine; human immunodeficiency virus; HIV; HIV; HIV envelope 91/coprotein; cellular CD4 receptor; env gene; gp160; gp120; gp41; CD4+ target cell; HIV-infected cell; CXCR4-binding compound; acquired immunodeficiency syndrome; AIDS; human; receptor. Human cysteine-X-cysteine chemokine receptor 4. AAO14003 standard, protein, 352 AA (first entry) Homo sapiens 08-MAY-2002 AA014003;

299

```
1. 39
/note= "Extracellular N-terminus; this is involved in HIV
                                                                                                                                                                                                                                                                  HIV entry into
                                                                                                                                                                                                                                                                  for
                                                                                                                                                                                                                                                           /note= "Extracellular loop 2; required
a cell"
                                                                                                                                                                                                                                                                                       /note= "Transmembrane segment 5 (TM5)"
224. .240
/note= "Intracellular loop 3"
                                                                                                                                                                                                                                              177. .197
/note= "Transmembrane segment 4 (TM4)"
198. .203
                                                                                                                                                                                   77. .99
/note= "Transmembrane segment 2 (TM2)"
                                                                                                                                                                 "Transmembrane segment 1 (TM1)"
                                                                                                                                                                                                                         segment 3
                                                                                                                                                                                                   100. .110
/note= "Extracellular loop 1"
111. .131
                                                                                                                                                                                                                                       'note= "Intracellular loop 2"
                                                                                                                                                                                                                         /note= "Transmembrane
132. .176
                                                                                                                                                                              "Intracellular
                                                                                                                             Location/Qualifiers
                                                                                                                                                  entry into a cell"
                                                                                                                                                                                                                                                                                  . 223
                                                                                                                                                                 /note= "T
65. .76
                                                                                                                                                                               /note=
                                                                                                                               Key
Region
                                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                     Region
                                                                                                                                                                                                                   Region
                                                                                                                                                                                                                                               Region
                                                                                                                                                                                                                                                                                  Region
                                                                                                                                                           Region
                                                                                                                                                                        Region
                                                                                                                                                                                       Region
                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                             Region
```

The invention relates to a method of identifying Cysteine-X-Cysteine chemokine receptor 4 (CXCR4) binding compounds. The method comprises testing and selecting compounds in a library for their ability to bind to cxCR4. Chemokines (chemoattractant cytokines) regulate the movement and biological activities of leukocytes in many disease situations. CXCR4 acts as a co-receptor for human immunodeficiency virus (HIV), as it interacts with the HIV envelope glycoproteins and the cellular CD4 ceceptor, to facilitate HIV entry into cells. The HIV glycoproteins (C anbsequently cleaved into gpl20 and gpq1. Gpl20 binds to CXCR4 and the coll subsequently cleaved into gpl20 and gpq1. Gpl20 binds to CXCR4 and the CC causing the virus to fuse with the cell membranes and thereby facilitating entry of the virus into the cell membranes and thereby councing the virus to fuse with the cell membranes and thereby councing the virus of the invention inhibit the entry of HIV into the CXCR4-binding compounds of the invention inhibit the entry of HIV into and the treatment and prevention of inhibit the entry of HIV intection and the treatment and prevention of acquired immunodeficiency syndrome (AIDS). The present sequence represents the human CXCR4 protein used in the method of the invention Identifying agents that bind to CXC chemokine receptor 4, useful for treatment and prevention of acquired immunodeficiency syndrome, comprises screening compound library for members that bind to the receptor. 241. .261 /note= "Transmembrane segment 6 (TM6)" 262. .282 /note= "Extracellular loop 3; this is involved in HIV 275 늉 /note= "Binds HIV gpl20" 280. .281 /note= "Apparently encoded by nucleotides 838-903 of AAX98241" 283. .307 /note= "Transmembrane segment 7 (TM7)" 308. .352 /note= "Intracellular C-terminus" SA Kates 'note= "Binds HIV gp120" Tan Hehir CA, Example 3; Fig 3B; 46pp; English. 21-WAR-2000; 2000US-0190946P. 21-MAR-2000; 2000US-0191996P. 21-MAR-2000; 2000US-0191299P. 20-MAR-2001; 2001US-00813448. 20-MAR-2001; 2001US-00813651. 21-MAR-2001; 2001WO-US009160. (CONS-) CONSENSUS PHARM INC. Nestor JJ, Wilson CJ, WPI; 2002-010593/01. N-PSDB; AAK98241. Misc-difference WO200170768-A2 Binding-site Binding-site 27-SEP-2001 

Gaps ., u Length 352; 89.9%; Score 1678.5; DB 5; Length 90.1%; Pred. No. 4e-192; tive 19; Mismatches 11; Indels Query Match Best Local Similarity 90,1% Matches 319; Conservative

P ò

Sequence 352 AA;

σ

178 245

123

305 298

```
Identifying a binding compound for cysteine-X-cysteine chemokine receptor 4 (CXCR4) for preventing or treating AIDS and HIV infection, comprises binding a molecule to a molecule with a binding property corresponding to CXCR4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention describes a method (M1) for identifying a binding compound for cysteine.X-cysteine chemokine receptor 4 (CXCR4) comprises binding a molecule from the library of two or more molecules to the molecule with a binding property corresponding to CXCR4. (M1) comprises:

(a) providing a library of two or more molecules; (b) providing a molecule with a binding property corresponding to CXCR4, (d) binding a molecule from the library of two or more molecules to the molecule with binding property or more molecules to the molecule with a binding to CXCR4; (d) separating the bound molecule from the library of two or more molecules; and (e) identifying the bound molecule as a binding compound for CXCR4. Also described is a binding compound (1) for CXCR4 identified from M1. (1) has virucide and
GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS
                                       GYOKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
                                                                                                                                  VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS
                                                                                                                                                                         QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                      179 EADDRYICDRFYPNDLWVVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                      KITVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KTTVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cysteine-X-cysteine chemokine receptor 4; CXC chemokine receptor 4; binding; identification; AIDS; HIV; CXCR4; virucide; anti-HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Krstenansky
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human CXC chemokine receptor 4 protein SEQ ID NO:126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kates SA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tan Hehir CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 3; Fig 3A-B; 92pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABP52651 standard; protein; 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-OCT-2000; 2000US-0243587P.
20-MAR-2001; 2001US-00913448.
20-MAR-2001; 2001US-00913651.
20-MAR-2001; 2001US-00813653.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-OCT-2001; 2001WO-US051165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CONS-) CONSENSUS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nestor JJ, Wilson CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-608378/65.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; ABQ74938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200257313-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-JUL-2002
                                                         64
                                                                                                                                                                                                                                                                    186
                                                                                                                                                                                                                                                                                                                                                                                                      246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        306
                                                                                                                                  126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABP52651;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 1.

ABP22651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

AARP32651

A
                                           g
                                                                                                                              à
                                                                                                                                                                         g
                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                     쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

۵,

```
ij
anti-HIV activities. A partially purified CXCR4 protein is useful for carrying out selection, identification and improvement of tight binding ligands in identifying therapeutically useful compounds. Therapeutic peptides, peptidomimetics, or small molecule antagonists or agonists of CXCR4 binding may be used in the prevention and treatment of AIDS and HIV infection. The present sequence represents human CXCR4 which is given in an example from the present invention
                                                                                                                                                                                                                                                                                                                                         125
                                                                                                                                                                                                                                                                                                                                                                               123
                                                                                                                                                                                                                                                                                                                                                                                                                     185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       305
                                                                                                                                                                                                                                                                   65
                                                                                                                                                                                                                                                                                                     63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CXC chemokine receptor 4; CXCR4; chemotaxis induction; SDF1a; stronal cell-derived factor lalpha; angiogenesis; atherosclerosis; restenosis; ischaemic stronal coll-derived factor lalpha; angiogenesis; atherosclerosis; restenosis; ischaemic strone; spinal cord injury; infection; ulcer; human immunodeficiency virus; HIV; acquired immunodeficiency syndrome; AIDS; pain; cancer; benign prostatic hypertrophy; diabetes; obsestey; ancexia; bulinia; asthma; Parkinson's disease; acute heart failure; hypotension; hypertrophy; diabetes; obsestey; hypotension; hypotension; benign prostatic hypertrophy; andiabetes; obsestey; anxiety; schizophrenia; dyskinesia; Huntingdon's disease; restenosis; anxiety; schizophrenia; dyskinesia; Huntingdon's disease; restenosis; inflammatory disease; rheumatoid arthritis; diabetic retinopathy; inflammatory bowel disease; atherosclerosis; Alzheimer's disease; congestive heart failure; cardiac remodeling; anglogenic diseases;
                                                                                                                                                                                                                                                                                       4 ISIYTSDNYTZEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                 126 VLILAFISLDRYLAIVHATNSQRPRKLLABKAVYVGWNIPALLLTIPDFIFADVSQGDIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 VSIYTSDNYSSEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                           66 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                       124 VLILAFISLDRYLAIVHATNSQRPRKLLABKVVYVGVWIPALLLTIPDFIFANV----S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGCHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSFHSS
                                                                                                                                                                                                                             5
                                                                                                                                                                                           Length 352;
                                                                                                                                                                                                                             11; Indels
                                                                                                                                                                                       89.9%; Score 1678.5; DB 5; 90.1%; Pred. No. 4e-192; live 19; Mismatches 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human CXC chemokine receptor 4 (CXCR4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                solid tumour; Kaposi Sarcoma; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABG32977 standard; protein; 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0093596P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-SEP-2001; 2001US-00953692
                                                                                                                                                                                       Query Match
Best Local Similarity 90.1%
Matches 319; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                     Sequence 352 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          382002107195-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                               64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABG32977;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABG32977
     88888888888
                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
```

THE MAY IS 13:54:59 2004

(SMIK ) SMITHKLINE BEECHAM CORP. 99US-00358624 WPI; 2002-697879/75. N-PSDB; ABS53992. 21-JUL-1999; 

Human CXCR4 protein

us-09-36/-052-2.rag

Inducing chemotaxis of endothelial cells, useful for regulating angiogenesis, e.g. for treating cancer, comprises treatment with stromal cell-derived factor 1 alpha.

Claim 3; Fig 1; 26pp; English.

The invention describes a method of inducing chemotaxis of endothelial cells by treatment with stronal cell-derived factor lalpha (GDFIa). The method is used for stimulating EC chemotaxis, and thus angiogeneis, and studies a used for treating atherosclerosis, restenosis, ischaemic stroke and spinal cord injury. Inhibitucin of this process is useful in treatment and prevention of a very wide range of diseases, such as infection (by bacteria, fungi, protozoa or viruses such as human immunodeficiency virus (HIV) and adquired immunodeficiency syndrome (AIDS), pain, cancer and benign prostatic hypertrophy, diabetes, obesity, anorexia, bulimia, asthma, Parkinson's disease, acute heart failure, hypotension, hypotension, usinary retention, osteoprosis, anginal petrophy, migraine, vomiting, psychotic and neurological disorders (e.g. anxiety, cohizophrenia) and dsykinesias. (e.g. huntingdon's disease), inflammatory disease, rheumatorid arthritis, diabetic retinopathy, inflammatory disease, atherosclerosis, restenosis, Alzheimer's disease, congestive heart failure, cardiac remodeling, angiogenic disease, solid tumours, and Xaposi Sarcoma. This is the amino acid sequence of a CXC chemokine constructive.

Sequence 352 AA;

245 GYQKKLRSWIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123 124 VLILAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLLTIPDFIFANV----S 178 GYOKKIRSMIDKYRIHISVADILFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125 VLILAFISLDRYLAIVHATNSQRPRKLLABKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185 EADDRYICDRFYPNDLWVVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRXAL 238 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305 239 KITVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 298 9 9 4 ISIXTSDNYTEEMGSGDYDSMKEFCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVW 63 VSIYTSDNYSBEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 5; Сарв PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFFHSS 352 89.9%; Score 1678.5; DB 5; Length 352; 90.1%; Pred. No. 4e-192; ive 19; Mismatches 11; Indels 5; Query Match Best Local Similarity 90.1% Matches 319; Conservative 99 64 126 186 179 246 306 299 g ò g ò g  $\delta$ d  $\stackrel{\sim}{\circ}$ g à

ABG33065 standard; protein; 352 (first entry) 28-NOV-2002 ABG33065;

The present invention relates to a new method for inducing chemotaxis of endothelial cells (EC). The method of the invention involves treatment with a stromal cell-derived factor is (SPFIalpha). The method is used for stimulating EC chemotaxis, and thus angiogenesis, and is used for treating atherosclerosis, restenosis, ischaemic stroke and spinal cord injury, while inhibition of this process is useful in treatment and cord injury, while inhibition of this process is useful in treatment and cord injury, while inhibition of this process is useful in treatment and cord injury, while inhibition of this process is useful in treatment and cord injury, while and range of diseases, e.g. infection (by bacteria, fungity, process, obesity, anorexia, bulimia, asthma, allergies, Parkinson's disease, acute heart failure, hypotension, hypotension, construction, stroke, ulcers, migraine, vomiting, psychotic and neurological disorders and dyskinesias, inflammatory disease, atherosclerosis, restenosis, restenosis, retinopathy, inflammatory disease, atherosclerosis, restenosis, retinopathy, inflammatory disease, atherosclerosis, restenosis, retinopathy, inflammatory bowel disease, atherosclerosis, restenosis, angiogenic diseases, solid tumours, and Kaposi sarcoma. The present amino condition of the invention Chemotaxis; endothelial cell; EC; angiogenesis; atherosclerosis; restenosis; ischaemic stroke; spinal cord injury; infection; bacteria; fungl; protozoa; virus; pain; cancer; benign prostatic hypertrophy; diabetes; obesity; ancrexia; bullimia; asthma; allergy; hypertension; parkinson's disease; acute heart failure; hypotension; urinary retention; osteoporosis; angina pectoris; myocardial infarction; stroke; dyskinesia; migraine; vomiting; psychotic disorder; neurological disorder; ulcer; inflammatory disorder; rheumatoid arthritis; diabetic retinopathy; inflammatory bowel disease; atherosclerosis; restenosis; Kaposi sarcoma; Alzheimer; disease; congestive heart failure; cardiac remodelling; angiogenic disease; solid tumour; human; stromal cell derived factor-la; SDF-lalpha; CXCR4. 126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185 65 63 Inducing chemotaxis of endothelial cells, useful for regulating angiogenesis, e.g. for treating cancer, comprises treatment with stromal cell-derived factor 1 alpha. 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVW 66 GYOKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS Gaps 5, 89.9%; Score 1678.5; DB 5; Length 352; 90.1%; Pred. No. 4e-192; tive 19; Mismatches 11; Indels 5; SMIK ) SMITHKLINE BEECHAM CORP Claim 3; Fig 1; 26pp; English. 17-SEP-2001; 2001US-00953717. 99US-00358624. Query Match
Best Local Similarity 90.15
Matches 319; Conservative WPI; 2002-706230/76. N-PSDB; ABS53750. JS2002107196-A1. Sequence 352 AA; 21-JUL-1998; 21-JUL-1999; 38-AUG-2002. Gupta SK; g ò à

12. 18 177 246 233 300 295 cch comple		186 CGDDRYICDRLYPDSLWMVVPQPQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245	:	S KTTVILILAFPACKLPYXVGISIDSPILLGVIKQGCDFESIVHKMISITEALAFFHCCLN 305	STTVILILAFFACWLPYYIGISIDSFILLEIIKQGCBFENTVHKWISITEALAFFHCCLN 298	PILYAFLGAKFKSSAQHALN	PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352	Search completed: May 17, 2004, 22:16:14 Job time : 141 secs
	12,	18	179	246	239	306	299	Search completed: M. Job time : 141 secs

# GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

May 17, 2004, 22:14:28; Search time 31 Seconds (without alignments) 597.862 Million cell updates/sec Run on:

Title: Perfect score:

US-09-367-052-2 1867 1 MEPISVSIYTSDNYSEEVGS.......KRGGHSSVSTESESSSFHSS 359 Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

389414 segs, 51625971 residues Searched: Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

1: /cgn2 6/ptcdata/2/jaa/5A\_COMB.pep:\*
2: /cgn2 6/ptcdata/2/jaa/5B\_COMB.pep:\*
3: /cgn2 6/ptcdata/2/jaa/6A\_COMB.pep:\*
4: /cgn2 6/ptcdata/2/jaa/6B\_COMB.pep:\*
5: /cgn2 6/ptcdata/2/jaa/PCTUS\_COMB.pep:\*
6: /cgn2 6/ptcdata/2/jaa/PCTUS\_COMB.pep:\* Issued\_Patents\_AA:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

Description	Sequence 3, Appli	equence 4,	equence 4,	quence 4,	e 4	equence 4,	equence 4,	equence 4,	equence 4,	quence 4,	ω	equence 6,	٠	4	equence 4(	4	equence 46	equence 2,	equence 2,	ñ	equence 2	equence 1.	equence 2(		9	e S	Sequence 34, Appl
CI.	-08-202-	-076-09	-08-701-26	US-08-284-586-4	-08-805-47	-802-62	-08-801-23	-08-801-	-09-104-29	517-60	18-450-393A	146-6	0-3650.	3-153-84	4-	09-088-3	r-US93-11153-4	-08-709-83	US-08-829-839-2	-09-170-49	9	-170-49	-08-	-232-878-	-045-583-5	US-09-534-185-55	US-08-939-107-34
DB		Н	H	~	2	7	~	~	m	4	н	ო	ß	-	m	4	S	ო	m	4	4	4	m	ო	ო	4	4
% Query Match Length		10	10	10	10	10	10	10	10	10	10	10	ın	m	m	ന	m	ശ	w	യ	368	w	v	w	vo	യ	w
% Query Match			ς.	89.9	ď	φ.	e.	Ψ.	σ.	φ.	87.9	۲.	7	ú	ú	86.9	ů.	31.3	ä	ä	31.3	H	٥.	ö	ö	30.6	ö
Ñ	78.	678.	678.	1678.5	678.	678.	678.	678.	678.	678.	41.	641.	641.	621.	21.	21.	21.	യ	ထ	œ	584	œ	70.	70.	70.		70.
Result No.	i ====================================	7	m	4	ហ	9	7	œ	OΛ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27

ઠે

equence equence equence	equence 66, equence 1, equence 8,	Sequence 5, Appli Sequence 8, Appli Sequence 8, Appli	r, 4, c	966	7 14 1	sequence 1, Appli Sequence 1, Appli
-08-513-974B-3 -08-833-752-10 -09-299-843A-6	US-09-088-337B-66 US-07-759-568-1 US-08-450-393A-8	US-08-390-000A-5 US-08-446-669-8 PCT-US95-00476-8	08-202-056 09-409-778	18-153-848-13 19-299-843A-1 19-088-337B-1	r-US93-11153-1 -08-153-848-15	US-09-299-843A-15 US-09-251-545-1
60 44 40	444	01 m m	4.	1 W 4	<b>и</b> н	m m
01.00	378 355 355	50 50	1 40 W L	വവവ	20	7-1-
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				00 00	 m m
in m 0	550.5 544.5 544.5	T T T		537.5 537.5 537.5		37.
3 7 8 3 7 8	3 3 3 1 3 3 2 1	3334	33	2 4 4 2 0 1	4 4 2 6	<b>4.</b> 4. 4. 0.

#### ALIGNMENTS

```
6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                      GENERAL INFORMATION:

APPLICANT: Chuntharapai, Anan
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Lee, James
TITLE OF INVENTION: Antibodies to Human IL-8 Type B Receptor
NUMBER OF SEQUENCES: 8
CONFESSER: ADDRESS:
ADDRESSER: Generacch, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Prancisco
STREET: 460 Point San Bruno Blvd
CITY: South San Prancisco
STREET: 460 Point San Prancisco
COUNTY: USA
ZIP: 94080
COUNTY: USA
ZIP: 94080
COMPUTER: LIBM PC compatible
OPERATING SYSTEM: Generatech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: USy 08/202, 056
FILING DATE: 25-FEB-1994
CLASSIFICATION ATA:
APPLICATION HUMBER: 07/677211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match

89.9%; Score 1678.5; DB 1; Length 352;
Best Local Similarity 90.1%; Pred. No. 6.6e-133;
Matches 319; Conservative 19; Mismatches 11;; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 29-MAR-1991
ATTORNEY AGENT INFORMATION:
NAME: LOVE, RICHARD.
REFERENCE/DOCKET NUMBER: 34-659
REFERENCE/DOCKET NUMBER: 706P3
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/952-9881
TELEFAX: 415/952-9881
TELEFAX: 910/317-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
US-08-202-056-3; Application US/08202056; Patent No. 5440021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
                                                                          GENERAL INFORMATION:
```

```
64 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123
                                                                                                                                                                                             126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                    245
                                                                                                                                                                                                                                                                                                                                          246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                            239 KTTVILLLAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 298
                                                                                 66 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAYDAMADWYFGKFLCKAVHIIYIVNLYSS 125
+ ISIYTSDNYTEEMGSGDYDSMKEPCPREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM 63
                                                                                                                                                                                                                                                                                                            186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILLSKGKRGGHSSVSTESESSSFHSS 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-VUE-VIE-VIE-VIERD
US-VIE-VIE-VIERD
US-VIERD
US-SEQUENCE
SEQUENCE
SEQUENCE
SEGREAL
SPEICANT: Hebert, James
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: US-SEGRESSE
ADDRESSES: Generatech, Inc.
STREET: South San Francisco
STATE: California
CONPUTER: Galifornia
APPLICATION TYPE: 3: inch, 1.44 Mb floppy disk
CONPUTER: Winhartin (Generatech)
CONPUTER: Winhartin (Generatech)
CONPUTER: Winhartin (Generatech)
CONPUTER: Winhartin (Generatech)
CONPUTER: Winhartin (Generatech)
CONPUTER: 10-10-1993
CLASSIFICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
REGISTRATION NUMBER: 70/662
FILING DATE: 29-MAR-1991
ATTORNEY/AGENT INFORMATION:
APPLICATION NUMBER: 70/662
FILIERPAN: 418/225-5530
TELECHOME: 10-0- Richard B
REGISTRATION NUMBER: 70662
TELECHOME: 10-0- Richard B
REGISTRATION NUMBER: 70662
TELECHOME: 10-0- Richard B
REGISTRATION NUMBER: 70662
TELECHOME: 10-0- Richard B
REGISTRATION NUMBER: 70662
TELECHOME: 10-10- Richard B
REGISTRATION NUMBER: 70662
TELECHOME: 10-0- Richard B
REGISTRATION NUMBER: 70662
TELECHOME: 10-0- Richard B
REGISTRATION NUMBER: 70662
TELECHOME: 10-0- Richard B
REGISTRATION NUMBER: 70662
TELECHOME: 20-0- RICHARD STRISTINGS
TELECHOME: 20-0- RICHARD STRISTINGS
TENDERATION SOUTH STRISTINGS
TENDERATION SOUTH STATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 352 amino acids
TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-076-093A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY
                                                                                                                                    d
                                                                              ò
                                                                                                                                                                                                ò
                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

239 KTTVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 298

299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS

186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245

246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN

64 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYIVNLYSS 123

VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 

126

66 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125

> 셤 ò d ઠે 셤 ò 셤 ð g ઠે

Gaps

. .

11; Indels

Best Local Similarity 90.1%; Pred. No. 6.6e-133; Matches 319; Conservative 19; Mismatches 11;

```
Sequence 4, Application US/08701265
; Sequence 4, Application US/08701265
; Patent No. 5776457
; GENERAL INFORMATION:
; APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
; APPLICANT: Jin Knibodies to Human PP4A Receptors
; TITLE OF INVENTION: Antibodies to Human PP4A Receptors
; TITLE OF INVENTION: Antibodies to Human PP4A Receptors
; TITLE OF INVENTION: Antibodies to Human PP4A Receptors
; TITLE OF INVENTION: Antibodies to Human PP4A Receptors
; TITLE OF INVENTION: Antibodies to Human PP4A Receptors
; CORRESPONDENCE ADDRESS:
; ADDRESSE: Genentech, Inc.
; STREET: Galifornia
; COUTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READBLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: B. S. inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/701,265
FILING DATE: 22-AUG-1996
CLASSIFICATION NUMBER: 08/076093
PRIOR APPLICATION NUMBER: 07/810782
PILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/810782
PILING DATE: 19-DEC-1991
APPLICATION NUMBER: 07/87211
PRIOR APPLICATION DATA: 18-DEC-1991
ATTORNEY/AGBNIT INFORMATION:
NAME: LOVE, RICHARD BREGISTRATION NUMBER: 34,659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 7061
TELECOMMUNICATION INFORMATION:
TELEPRAX: 415/952-9881
TELER 310/371-7168
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 94080
US-08-701-265-4
```

89.9%; Score 1678.5; DB 1; Length 352;

Query Match

66 GYOKKIRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125 64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123 185 178 245 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305 63 126 VLILAFISLDRYLAIVHATNSQRPRKLLABKAVYVGVWIPALLLTIPDFIFADVSQGDIS 186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 239 KTTVILILAFFACWLDYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 6 VSIYTSDNYSBEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM Gaps 306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 .. .. Query Match 89.9%; Score 1678.5; DB 1; Length 352; Best Local Similarity 90.1%; Pred. No. 6.6e-133; Matches 319; Conservative 19; Mismatches 11; Indels 5; Sequence 4, Application US/08284586
Partent No. 5840856
Partent No. 5840856
Partent No. Sequence
APPLICANT: Churtharapai, Anan
APPLICANT: Lee, James
APPLICANT: Jen Kim, K.
TITLE OF INVENTION: Antibodies to Human PF4A Receptors
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS: COUNTY: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFFWARE: WinPatin (Genentech)
CURENT APPLICATION DATA:
APPLICATION NUMBER: US/08/284,586
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: US/08/076,093A
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
APPLICATION NUMBER: 07/810782
FILING DATE: 29-MAR-1991
ATTORNEY/AGENT INFORMATION:
NUMBE: LOVE, RICHARD B ADDRESSEE: Genemeech, Inc. STREET: 460 Point San Bruno Blvd CITY: South San Francisco STATE: California COUNTRY: USA 34,659 ER: 706P2 : 352 amino acids Amino Acid REFERENCE/DOCKET NUMBER: ; TYPE: Amino Acid ; TOPOLOGY: Linear US-08-701-265-4 246 299 g ò 셤 ò Dp ò g ò

```
126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                            124 VLILAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLLTIPDFIFANV----S 178
                                                                                                                                                                                                                                                                                                                              246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKOGCDFESIVHKWISITEALAFFHCCLN 305
                                                                6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 65
                                                                                                 63
                                                                                   4 ISIYTSDNYTEEMGSGDYDSMXEPCFRESNANFNKIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                  239 KTTVILILAFPACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                               186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                            306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                               2
Query Match
89.9%; Score 1678.5; DB 2; Length 352;
Best Local Similarity 90.1%; Pred. No. 6.6e-133;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTY: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/805,478
FILING DATE: 25-Feb-1997
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/284586
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/284586
FILING DATE: 11-JUN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-805-478-4
                                                                                             ď
                                                                                                                             ઠે
                                                                                                                                                            g
                                                                                                                                                                                                                           qq
                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                            \delta
                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                              à
```

TELECOMMUNICATION INFORMATION: TELEPHONE: 415/225-5530 TELEFAX: 415/952-9881

TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 4: SEQUENCE CHARACTERISTICS:
LENGTH: 352 amino acids
TYPE: Amino Acid
TOPOLOGY: Linear

```
124 VLILAFISLDRYLAIVHATNSQRPKKLLAEKVVYVGVMIPALLLIIPDFIFANV----S 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           179 EADDRYICDRFYPNDLWVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                66 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIXSIIFLTGIVGNGLVILVM 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 VSIYTSDNYSBEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             299 PILYAPIGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
                                                                                                                                                                                                                                                                                                                                                                                                                                           ņ
                                                                                                                                                                                                                                                                                                                                                                                        Query Match

89.9%; Score 1678.5; DB 2; Length 352;
Best Local Similarity 90.1%; Pred. No. 6.6e-133;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 4. Application US/08802627A
Fatent No. 5892017
GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Wood, William I.
TITLE OF INVENTIONS:
GORRESPONDENCE ADRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
COMPUTER: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/802,627A
FILING DATE: 19-Feb-1997
ATTORNEY NUMBER: 07/810782
PILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, RICHARD B.
REGISTRATION NUMBER: 34,659
REFRENCE/DOCKET NUMBER: P0706
TELECOMMUNICATION INFORMATION:
TELEFAK: 415/952-9881
TELEF. 310/371-7168
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENCTH: 352 amino acids
TYPE: Amino Acid
    07/810782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA
                                                                                                                                                                                                                                                                                                                      ;
TOPOLOGY: Linear
US-08-805-478-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
US-08-802-627A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

PRICE APPLICATION DATA:
PRICE APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION NUMBER: 07/810782
PRICE APPLICATION NUMBER: 07/810782
PRILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, Richard B.
REGISTRATION NUMBER: 94.659
REFERENCE/DOCKET NUMBER: P0706F
TELEPHONE: 415/25-530
TELEPHONE: 415/22-9881
: INFORMATION FOR SEQ ID NO: 4:
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
FUNCTH. 352 amino acids

```
126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLITIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                             246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDPBSIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                       66 GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                      4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM 63
                                                                                                                                                                                                6 VSIYTSDNYSBEVGSGDYDSNKEPCFRDENVHPNRIFLPTIYFIIFLTGIVGNGLVILVM 65
                                                                                                                                                                                                                                                                                                                                                                        64 GYQKKLRSMTDKYRLHISVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                       186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS
                                                                                                                                                             ŝ
                                                                                                                          Length 352;
                                                                                                                                                             11; Indels
                                                                                                                        Query Match
Best Local Similarity 90.1%; Pred. No. 6.6e-133;
Matches 319; Conservative 19; Mismatches 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER FALDABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
COPRATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Windatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 4, Application US/08801238
; Sequence 4, Application US/08801238
; Patent No. 591986;
GENERAL INFORMATION:
; APPLICANT: Lee, James
; APPLICANT: Wood, William I.
TILE OF INVENTION: FF4A RECEPTOR
; VUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSE: Generace, Inc.
STREET: Generace, Inc.
CITY: South San Francisco
STATE: California
COUNTRY: USA
TYPE: Amino acids

TOPOLOGY: Linear
US-08-802-627A-4
                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                           \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
```

```
RESULT 9
US-09-104-296-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-801-228-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246 KITVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    66 GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/08801228

Patent No. 5922541

GENERAL INFORMATION:

APPLICANT: Meed, William I.

TITLE OF INVENTION: METHODS FOR DETECTION AND AMPLIFICATION OF

TITLE OF INVENTION: PF4A RECEPTOR NUCLEIC ACID

NUMBER OF SEQUENCES: 6

CORRESPONDENCE ADDRESS:

ADDRESSEE: Genentech, Inc.

STREET: 460 Point San Bruno Blvd

COUNTRY: Couth San Francisco

STATE: California

COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGCHSSVSTESESSSFHSS 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match

89.9%; Score 1678.5; DB 2;
Best Local Similarity 90.1%; Pred. No. 6.6e-133;
Matches 319; Conservative 19; Mismatches 11;
                                                                                                                                                                                                                                                                                                                                       P0706P2P1D1
APPLICATION NUMBER: US/08/801,238 FILING DATE: 19-Feb-1997 CLASSIFICATION: 530
                                                        PRIOR APPLICATION 1930
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/84586
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-JUN-1993
FILING DATE: 11-JUN-1993
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, RICHARD B.
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 39,659
REFERENCE/DOCKET NUMBER: 39,659
REFERENCE/DOCKET NUMBER: 39,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 415/952-9881
TELEEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 352 amino acids
TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-801-238-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
66 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLIJIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      179 BADDRYICDRRYPNDLWVVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          246 KITVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 ISIYTSDNYTBEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match
Best Local Similarity 90.1%; Pred. No. 6.6e-133;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible COPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genetech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/801,228
FILING DATE: 19-Feb-1997
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/264586
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 19-D6C-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, RACHARD REFERENCE/DOCKET NUMBER: 90706F2PID3
TELECOMMUTCATION INFORMATION:
MELECOMMUTCATION INFORMATION:
MELECOMMUTCATION INFORMATION:
MELECOMMUTCATION INFORMATION:
MELECOMMUTCATION INFORMATION:
MELECOMMUTCATION INFORMATION:
METERERENCE/DOCKET NUMBER: 90.06F2PID3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 4, Application US/09104296
Patent No. 6087475
GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Wood, William I.
TITLE OF INVENTION: FF4A Receptors
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 415/225-5530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   415/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: Linear
```

123

```
Parent No. 6391567
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Littman, Dan R.
APPLICANT: Exercise S.
APPLICANT: Kwon, Douglas S.
APPLICANT: Won, WIRTHORS S.
APPLICANT: Geijtenbeck, Tweed
TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF RETROVIRAL ENTRY INTO
TITLE OF INVENTION: CELLS
FILE REFERENCE: 1049-1-017
CURRENT APPLICATION NUMBER: US/09/517,605
CURRENT FILING DATE: 2000-03-02
NUMBER OF SEQ ID NOS: 17
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFBSIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    186 QGDDRYICDRLYPDSLWMVVPQPQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       66 GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 ISIYTSDNYTEEMGSGDYDSMKEFCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKCKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'n
                                                                                                                                                                                                                                                                                                                                                                               DB 4; Length 352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Score 1678.5; DB 4; Length
; Pred. No. 6.6e-133;
19; Mismatches 11; Indels
Sequence 4, Application US/09517605
                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 90.1%;
Matches 319; Conservative 15
                                                                                                                                                                                                                                                                                                  ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-517-605-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-450-393A-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            66 GYQKKURSMIDKYRLHLSVADILJFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                179 EADDRYICDREYPNDLWVVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 ISIYISDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLIGIVGNGLVILVW 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 3; Length 352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match

89.9%; Score 1678.5; DB 3; Length 3
Best Local Similarity 90.1%; Pred. No. 6.6e-133;
Matches 319; Conservative 19; Mismatches 11; Indels
                                                                                                                                 3: 3.5 inch, 1.44 Mb floppy disk
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                             OPERATING SYSTEM: FC-LOOK, No.-LOOS SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/104,296
FILING DATE: 24-Unne-1998
CLASSIFICATION NUMBER: US/09/101265
FILING DATE: 22-AUG-1996
FRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/64228
FILING DATE: 22-AUG-1996
FRIOR APPLICATION NUMBER: 08/64228
FILING DATE: 06-UN-1996
FRIOR APPLICATION NUMBER: 08/076093
FILING DATE: 11-UN-1993
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, RICHARA
TELEPHONE: 415/25-5530
TELEPHONE: 415/25-5981
TELEPHONE: 415/25-5981
TELEPHONE: 415/25-9881
TELEPHONE AFACTERISTICS:
LENGTH: 352 amino acids
TYPE: Anino Acid
TYPE: Anino Acid
TYPE: Anino Acid
                      : 1 DNA Way
South San Francisco
California
      Genentech, Inc
                                                                                          ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch
COMPUTER: IBM PC comp
OPERATING SYSTEM: PC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: Linear
  ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-104-296-4
                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            299
```

RESULT 10 US-09-517-605-4

g ਨੇ

à

ò

à

```
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Neeley, Richard
REGISTRATION NUMBER: 30,092
REFERENCE/DOCKET NUMBER: UCA
TELEPOMONICATION INFORMATION:
TELEPOMONICATION INFORMATION:
TELEPAX: 415-857-0663
TELEX: 380816CooleyPA
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS
LENGTH: 352 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
ATTORNEY/AGENT INFORMATION
NAME: Berliner, Robert
                                                                                                                                                                                                                                          : 352 amino acids
amino acid
                                                                                                                                                                                                                                                                              TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
US-08-446-669-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
PCT-US95-00476-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             66 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         124 VLILAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLLITPDFIFANV----S 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              239 KYYVILILAFPACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFPHCCLN 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64 GYQKKURSMIDIKYRLHLSVADLLEVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          299 PILYAFLGAKFKYSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                               'n
                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
87.9%; Score 1641.5; DB 1; Length 352;
Best Local Similarity 88.7%; Pred. No. 8.2e-130;
Matches 314; Conservative 18; Mismatches 17; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 6, Application US/08446669

Patent No. 6132997

GENERAL INFORMATION:

APPLICANT: Charo, Israel

APPLICANT: Coughlin, Shaun

TITLE OF INVENTION: PROTEIN RECEPTORS

NUMBER OF SEQUENCES: 14

CORRESPONDENCE ADDRESS:

ADDRESSEE: Cooley Godward Castro Huddleson & Tatum

STREET: 5 Palo Alto

STREET: Callafornia

STREET: Callafornia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZOUNTAIN USA
ZIP: 94306-2155
COMPUTER READABLE FORM:
MEDIUM TYPE: FIDEPPY disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/446,669
FILING DATE: May 25, 1995
FILING DATE: May 25, 1995
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: CSETY, LUARN
REGISTRATION NUMBER: 31,822
TELECOMMUNICATION NUMBER: UCAL-237/02US
TELECOMMUNICATION INFORMATION:
TELEPAN: 415-843-5165
TELEFAX: 415-843-5165
TELEFAX: 415-8857-065
TELEFAX: 380816CooleyPA
INFORMATION FOR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS:
LENGTH: 352 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: protein HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                        US-08-450-393A-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 12
US-08-446-669-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

```
178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            239 KYYVILILAPPACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66 GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       64 GYQKKIRSMTDKYRIHISVADILEVITLPPWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 ISIYISDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPYIYSIIFLYGIVGNGLVILVW 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                186 QGDDRYICDRLYPDSLWWVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          299 PILYAFLGAKFKYSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 3; Length 352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gequence de Application PC/TUS9500476

general INFORMATION:
   APPLICANT: The Regents of the University of California
   APPLICANT: The Regents of the University of California
   APPLICANT: The Regents of the University of California
   TITLE OF INVENTION: PROTEIN RECEPTORS
   WUMBER OF SEQUENCES: 14
   CORRESPONDENCE ADDERS: 14
   CORRESPONDENCE ADDINS, Berliner & Carson
   STREET: 201 N. Figueroa Street, 5th Floor
   CITY: Los Angeles
   STATE: California
   COUNTRY: USA
   STATE: California
   CONTRY: USA
   STATE: Floppy disk
   MEDIUM TYPE: Floppy disk

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/00476
PILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 87.9%; Score 1641.5; DB 3; Best Local Similarity 68.7%; Pred. No. 8.2e-130; Matches 314; Conservative 18; Mismatches 17;
30,092
```

```
124 VLILARISLDRYLAIVHATUSQRPRKLLAEKVVYVGVWIPALLLIIPDFIFANV-----S 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GYOKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       64 GYQKKLRSMTDKYRLHLSVADLLEVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                     63
                                                                                                                                                                                                                                                                                                                                                                                                                                   4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFWKIFLPYYSIIFLYGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     239 KYYVILILAFFACWLPYYIGISIDSFILLEIIKQGCBFENTVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                         6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PILYAFLGAKFKYSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 46, Application US/08153848
Patent No. 5759804
GENERAL INFORMATION:
APPLICANT: Godiska, Ronald
APPLICANT: Gray, Patrick W.
APPLICANT: Gray, Patrick W.
APPLICANT: Schweikart, Vicki L.
TITLE OF INVENTION: M. 5759804el Seven Transmembrane Receptors
CORRESPONDENCE ADDRESS:
ADDRESSEE: Bicknell, O'Toole, Gerstein, Murray &
                                                                                                                                                                                                                                                                                                                                                                  5;
                                                                                                                                                                                                                                                                                                                         Length 352;
                                                                                                                                                                                                                                                                                                                                                                  17; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                  Ouery Match 87.9%; Score 1641.5; DB 5; Best Local Similarity 88.7%; Pred. No. 8.2e-130; Matches 314; Conservative 18; Mismatches 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PatentIn Release #1.0, Version #1.25
                  REFERENCE/DOCKET NUMBER: 5555-291
TELECOMMULTATION INFORMATION:
TELEPHONE: 310-977-1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/977,452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/153,848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
20,121
                                                                                                                         INFORMATION FOR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS: LENGTH: 352 amino acids TYPE: amino acid
                                                                                                                                                                                                         TOPOLOGY: Tinear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 60606
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDALL
STREET: 6300
CITY: Chicago
STATE: Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 14
US-08-153-848-46
                                                                                                                                                                                                                                                                              PCT-US95-00476-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   126
                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  176 PNDLWVVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKTTVILILAFFA 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   236 CWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLNPILYAFLGAKFK 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVMGYQKKLRSMTDK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      78 YRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVLILAFISLDRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 YRIHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVLILAFISLDRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       138 LAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQGDDRYICDRLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 LAIVHATNSQRPRKLLAEKVVYVGVWIPALLLTIPDFIFANV-----SEADDRYICDRFY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CWLPYYVGISIDSFILLGVIKOGCDFESIVHKWISITEALAFFHCCLNPILYAFLGAKFK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18 VGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGYQKKLRSMTDK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        198 PDSLWMVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKTTVILILAFFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                     5; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 46, Application US/09299843A
Patent No. 6107475
GENERAL INFORMATION:
APPLICANT: Gord, Patrick W.
APPLICANT: Schweikart, Vicki L.
TILLEOF INVENTION: No. 6107475el Seven Transmembrane Receptors
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 86.9%; Score 1621.5; DB 1; Length 337; Best Local Similarity 90.4%; Pred. No. 3.7e-128; Matches 309; Conservative 17; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    296 TSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       318 SSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: DESTRUCE PCCOMES SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
FILING DATE:
CLASSIFICATION: 435
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & ADDRESSEE: Borun STREET: 6300 Sears Tower, 233 South Wacker Drive CITY: Chicago STATE: 111inois COUNTRY: USA
ATTORNEY AGENT INVOLUS.

NAME: No. 5759804and, Greta E. REGISTRATION NUMBER: 35,302
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 31794
TELEFOND: (312) 474-6300
TELEFOND: (312) 474-6448
TELEFAM: 25-3856
INFORMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERISTICS:
LENGTH: 337 anino acid
TYPE: amino acid
TYPE: amino acid
TYPE: amino acid
MOLECULE TYPE: protein
US-08-153-848-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 15
US-09-299-843A-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
```

121 LAIVHAINSQRPRKLLAEKVVYVGVWIPALLLTIPDFIFANV-----SEADDRYICDRFY 175 258 CWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPILYAFLGAKFK 317 236 CWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLNPILYAFLGAKFK 295 138 LAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQGDDRYICDRLY 197 198 PDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKTTVILILAFFA 257 ιυ .. Query Match 86.9%; Score 1621.5; DB 3; Length 337; Best Local Similarity 90.4%; Pred. No. 3.7e-128; Matches 309; Conservative 17; Mismatches 11; Indels 5; PRIOR APPLICATION DATA:
APPLICATION NUBBER:
APPLICATION DATA:
FILING DATE: 01-01W-1996
PRIOR APPLICATION DATA:
APPLICATION NUBBER: US 08/153,848
FILING DATE: 17-00V-1993
PRIOR APPLICATION DATA:
APPLICATION NUBBER: US 07/977,452
FILING DATE: 17-00V-1992
ATTORNEY/AGENT INFORMATION:
FILING DATE: 17-00V-1992
ATTORNEY/AGENT INFORMATION:
FREEDROCKEN ON UNBER: 27866/320598
TELEPRONE (312) 474-0448
TELEPROCKEN (312) 474-0448
TELEPROCKEN (312) 474-0448
TELEPROCKEN (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: (312) 474-0448
TELERA: 원  $\delta$ d ò g ò q g 8

Search completed: May 17, 2004, 22:22:03 Job time : 37 secs

# GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

May 17, 2004, 22:19:12; Search time 547 Seconds (without alignments) 182.625 Million cell updates/sec Run on:

US-09-367-052-2 1867 1 MEPISVSIYTSDNYSEEVGS......KRGGHSSVSTESESSSFHSS 359 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

1145568 segs, 278261457 residues Searched: Total number of hits satisfying chosen parameters:

length: 0 length: 2000000000 Minimum DB seq Maximum DB seq

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

run\_ishiga\_Appircations\_Asi,

2: /cgn2\_6/prodata/1/pubpaa/USO7\_PUBCOMB.pep:\*

2: /cgn2\_6/prodata/1/pubpaa/USO6\_NEW\_PUB.pep:\*

3: /cgn2\_6/prodata/1/pubpaa/USO6\_NEW\_PUB.pep:\*

4: /cgn2\_6/prodata/1/pubpaa/USO6\_PUBCOMB.pep:\*

5: /cgn2\_6/prodata/1/pubpaa/PUBCOMB.pep:\*

6: /cgn2\_6/prodata/1/pubpaa/PUBCOMB.pep:\*

7: /cgn2\_6/prodata/1/pubpaa/USO8\_NEW\_PUB.pep:\*

8: /cgn2\_6/prodata/1/pubpaa/USO8\_NEW\_PUB.pep:\*

10: /cgn2\_6/prodata/1/pubpaa/USO8\_PUBCOMB.pep:\*

10: /cgn2\_6/prodata/1/pubpaa/USO8\_PUBCOMB.pep:\*

11: /cgn2\_6/prodata/1/pubpaa/USO8\_PUBCOMB.pep:\*

12: /cgn2\_6/prodata/1/pubpaa/USO8\_PUBCOMB.pep:\*

13: /cgn2\_6/prodata/1/pubpaa/USO8\_PUBCOMB.pep:\*

13: /cgn2\_6/prodata/1/pubpaa/USO8\_PUBCOMB.pep:\*

14: /cgn2\_6/prodata/1/pubpaa/USO8\_PUBCOMB.pep:\*

15: /cgn2\_6/prodata/1/pubpaa/USO8\_PUBCOMB.pep:\*

16: /cgn2\_6/prodata/1/pubpaa/USO8\_PUBCOMB.pep:\*

17: /cgn2\_6/prodata/1/pubpaa/USO8\_PUBCOMB.pep:\*

18: /cgn2\_6/prodata/1/pubpaa/USO8\_NEW\_PUB.pep:\*

18: /cgn2\_6/prodata/1/pubpaa/USO8\_NEW\_PUB.pep:\*

19: /cgn2\_6/prodata/1/pubpaa/USO8\_NEW\_PUB.pep:\*

19: /cgn2\_6/prodata/1/pubpaa/USO8\_NEW\_PUB.pep:\*

19: /cgn2\_6/prodata/1/pubpaa/USO8\_NEW\_PUB.pep:\*

19: /cgn2\_6/prodata/1/pubpaa/USO8\_NEW\_PUB.pep:\* Published Applications AA:\* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Description	Sequence 2, Appli	Sequence 2, Appli	Sequence 4, Appli	Sequence 81, Appl	Sequence 4, Appli	Sequence 10, Appl	Sequence 85, Appl		Sequence 331, App	Sequence 76, Appl	Sequence 1, Appli	Seguence 38, Appl	Sequence 123, App	Sequence 126, App	Sequence 79, Appl
OI 8	9 US-09-953-692-2	9 US-09-953-717-2	9 US-09-104-063-4	12 US-10-211-462-81	12 US-10-666-689-4	12 US-10-181-906-10	12 US-09-813-651B-85	12 US-10-151-274-4	12 US-10-170-385-331	14 US-10-225-567A-76	14 US-10-245-850-1	14 US-10-251-703-38	14 US-10-021-660-123	14 US-10-014-322A-126	14 US-10-239-423-79
% Query Match Length DB	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352
% Query Match	89.9	89.9	6.68	89.9	89.9	9.9	99.9	9 0.0	89.9	9.68	89.9	89.9	89.9	89.9	89.9
Score	1678.5	1678.5	1678.5	1678.5	1678.5	1678.5	1678.5	1678.5	1678.5	1678.5	1678.5	1678.5	1678.5	1678.5	1678.5
Result No.	 	N	m	4	'n	9	7	60	თ	10	11	12	13	14	15

Sequence 3, Appli Sequence 178, Appli Sequence 178, Appli Sequence 14, Appli Sequence 144, Appli Sequence 144, Appli Sequence 144, Appli Sequence 144, Appli Sequence 144, Appli Sequence 20, Appli Sequence 20, Appli Sequence 20, Appli Sequence 24, Appli Sequence 24, Appli Sequence 78, Appli Sequence 78, Appli Sequence 174, Appli Sequence 174, Appli Sequence 174, Appli Sequence 172, Appli Sequence 174, Appli Sequence 174, Appli Sequence 174, Appli Sequence 174, Appli Sequence 174, Appli Sequence 175, Appli Sequence 176, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli Sequence 177, Appli	66, App 55, App 48, App
S US-10-160-401-3 S US-10-160-401-3 S US-10-341-434-17 US-09-825-015-11 US-09-870-759-3-4 US-09-870-759-3-4 US-09-870-759-3-4 US-09-870-759-14-7 US-09-870-759-14-7 US-09-751-708A-1 US-09-751-708A-1 US-10-251-88A-1 US-10-251-88-6 US-10-251-88-6 US-10-251-88-6 US-10-29-707-77-7 US-09-737-444-17 US-09-744-413-20 US-09-744-413-20	- 225 - 567A - 164 - 649 - - 231 - 452 -
	••••
0.000000000000000000000000000000000000	
106788	2222
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 7 W 4 R

#### ALIGNMENTS

```
Sequence 2. Application US/09953692; Sequence 3. Application US/09953692; Patent No. US20020107195A1; Sequence 3. Application US/09953692; Patent No. US20020107195A1; Shalley, Gupta K.; PITILE OF INVENTION: Method for Inducing Chemotaxis in Endothelial Cells by TITILE OF INVENTION: Administering Stromal Cell Derived Factor-1(CHRENT ENFERENCE: PS0676C1; CURRENT FILING DATE: 2001-09-17; PRIOR PAPLICATION NUMBER: 09/358,624; PRIOR FILING DATE: 1999-07-21; PRIOR PAPLICATION NUMBER: 06/093,596; PRIOR FILING DATE: 1999-07-21; PRIOR PAPLICATION NUMBER: 60/093,596; SOFTWARE: Factor DATE: 1998-07-21; SOFTWARE: Factor OS: 6 SOFTWARE: Factor Windows Version 3.0; SOFTWARE: Patence 2. Seq. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 2. Sep. 1D NOS: 6 SOFTWARE: Patence 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               66 GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       64 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLITIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 ISIYTSDNYTEEMGSGDYDSMKEFCFREENANFNKIFLPTIXSIIFLTGIVGNGLVILVM 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 VSIYTSDNYSEEVGSGDXDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            s,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89.9%; Score 1678.5; DB 9; Length 352; 90.1%; Pred. No. 1.1e-145; ive 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 90.1
Matches 319; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Db
```

PF4A Receptors

```
TITLE OF INVENTION: PF4A Recel NUMBER OF SEQUENCES: 6 CORRESPONDENCE ADDRESS: ADDRESSEE: Genentech, Inc. STREET: 1 DNA WAY CITY: South San Francisco STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \delta
                                                                                                                                                                                                                                                                                          RESULT 2
US-09-953-17-2
US-09-953-17-2
Sequence 2, Application US/09953717
Sequence 2, Application US/09953717
Sequence 2, Application US/09953717
Sequence 1.0220020107196A1
FREERRAL INFORMATION:
APPLICANT: Shalley, Gupte K.
TITLE OF INVENTION: Method for Inducing Chemotaxis in Endothelial Cells by
ITTLE OF INVENTION: Method for Inducing Stromal Cell Derived Factor-1(
FILE REFERENCE: PS6676D1
CURRENT APPLICATION NUMBER: US/09/953,717
FRICE REPLING DATE: 1999-07-21
FRICE REPLING DATE: 1999-07-21
FRICE REPLING DATE: 1999-07-21
NUMBER OF SEQ ID NOS: 6
SOFTWARE: FastSEQ for Windowe Version 3.0
SEQ ID NO 2
LENGTH: 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFBSIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          239 KTTVILLLAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 298
                                                    305
                                                                                                                                    239 KTTVILILAFFACWLPYXIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GYOKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   64 GYQKKLRSWIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245
                            245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM 63
                                                                                                            KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                            186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
                                                                                                                                                                                         306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                   299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match

89.9%; Score 1678.5; DB 9; Length 352;
Best Local Similarity 90.1%; Pred. No. 1.1e-145;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
CRGANISM: Human
US-09-953-717-2
                                                                                                            246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   186
                                                                엄
                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                         \overset{\sim}{\circ}
                                                                                                                                                                                         ò
```

```
185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        66 GYÇKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       246 KITVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITBALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 90.1%; Pred. No. 1.1e-145;
Matches 319; Conservative 19; Mismatches 11; Indels
ZUONINTER REALDABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 MD floppy disk COMPUTER: IBM PC COMPATIBLE COMPUTER: IBM PC COMPATIBLE COMPUTER: IBM PC COMPATIBLE COMPUTER: IBM PC COMPATIBLE COMPATION SYSTEM: PC-DOS/MS-DOS SOFTWARE: WINDER: US/OS/104,063
APPLICATION NUMBER: US/OS/104,063
FILING DATE: 24-June-1998
CLASSIFICATION DATE: APPLICATION DATE: APPLICATION DATE: 08/701265
FILING DATE: 22-AUG-196
FILING DATE: 22-AUG-1996
FILING DATE: 12-AUG-1996
FILING DATE: 08/0033
FILING DATE: 11-JUN-1993
FILING DATE: 11-JUN-1993
FILING DATE: 11-JUN-1993
FILING DATE: 11-JUN-1993
FILING DATE: 11-JUN-1993
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
APPLICATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
TELEPRX: 415/225-5530
TELERX: 415/952-9881
TELERX: 910/371-7168
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-104-063-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

RESULT 3
US-09-104-063-4
US-09-104-063-4
Sequence 4, Application US/09104063
Patent No. US20020168356A1
GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Wood, WIlliam I.

```
Sequence 81, Application US/10211462
) Sequence 81, Application US/10211462
) Fublication No. US20040033495A1
) GENERAL INFORMATION:

APPLICANT: Glynne, Richard

APPLICANT: Glynne, Richard

APPLICANT: Glynne, Richard

APPLICANT: Aziz, Natasha

APPLICANT: Es Biotechnology, Inc.

APPLICANT: Bos Biotechnology, Inc.

APPLICANT: Bos Biotechnology, Inc.

APPLICANT: Bos Biotechnology, Inc.

APPLICANT: Bos Biotechnology, Inc.

APPLICANT: Bos Biotechnology, Inc.

APPLICANT: Bos Biotechnology, Inc.

APPLICANT: Bos Biotechnology, Inc.

APPLICANT: Bos Biotechnology, Inc.

APPLICANT: Bos Biotechnology, Inc.

TITLE OF INVENTION: Methods of Screening for Angiogenesis Modulators

FILE REFERENCE: 018501-0062003

CURRENT FILING DATE: 2001-02-13

PRIOR APPLICATION NUMBER: US 60/791,390

PRIOR FILING DATE: 2001-02-2

PRIOR APPLICATION NUMBER: US 60/310,025

PRIOR FILING DATE: 2001-11-29

PRIOR FILING DATE: 2001-11-29

PRIOR FILING DATE: 2001-11-29

PRIOR FILING DATE: 2001-11-29

PRIOR FILING DATE: 2001-11-29

MUMBER OF SEQ ID NOS: 230

SOFFWARE: PatentIn Ver. 2.1

SEQ ID NO 81

LENGTH: 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNPLCKAVHVIYTVNLYSS 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLIIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      239 KTTVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-666-689-4
Sequence 4, Application US/10666689
Publication No. US20040037830A1
Publication No. US20040037830A1
SERBEAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Nood, William I.
TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and TITLE OF INVENTION: Antibodies Binding Thereto
FILE REPRENCE: POT06F2C2D2C1
FURBENT APPLICATION NUMBER: US/10/666,689
CURRENT FILING DATE: 2003-09-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match

89.9%; Score 1678.5; DB 12; Length 352;
Best Local Similarity 90.1%; Pred. No. 1.1e-145;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: Homo sapiens
US-10-211-462-81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ें
```

PRIOR APPLICATION NUMBER: US 09/104,063
PRIOR FILING DATE: 1988-06-24
PRIOR PILING DATE: 1988-06-24
PRIOR PILING DATE: 1988-08-22
PRIOR APPLICATION NUMBER: US 08/701,265
PRIOR APPLICATION NUMBER: US 08/076,093
PRIOR PILING DATE: 1996-06-06
PRIOR PILING DATE: 1991-06-10
PRIOR PILING DATE: 1991-12-19
PRIOR PILING DATE: 1991-12-19
PRIOR APPLICATION NUMBER: US 07/810,782
PRIOR PILING DATE: 1991-12-19
PRIOR APPLICATION NUMBER: US 07/677,211
PRIOR PILING DATE: 1991-03-29
NUMBER OF SEQ ID NOS: 6
SEQ ID NOS: 6

18-09-20-/05-60-8D

; LENGTH: 352 ; TYPE: PRT ; ORGANISM: Homo sapien US-10-666-689-4

```
Sequence 10, Application US/10181906
| Publication No. US20040053864A1
| Sequence 10, Application US/10181906
| Publication No. US20040053864A1
| GENERAL INFORMATION:
| APPLICANT: Karsenty, Gerard
| APPLICANT: Amling, Michael
| APPLICANT: Amling, Michael
| APPLICANT: Amling, Michael
| APPLICANT: Amling, Michael
| APPLICANT: Amling, Michael
| TITLE OF INVENTION: WODULATION OF NEUROPEPTIDE Y ACTIVITY
| FILE REFERENCE: 9442-020-999
| CURRENT APPLICATION NUMBER: US/10/181,906
| CURRENT APPLICATION NUMBER: DZ/1021016
| PRIOR APPLICATION NUMBER: PCT/US01/02040
| PRIOR APPLICATION NUMBER: PCT/US01/02040
| PRIOR APPLICATION NUMBER: DCT/US01/02040
| PRIOR PLILNG DATE: 2001-01-22
| NUMBER OF SEQ ID NOS: 16
| SOUTHARE: PatentIn version 3.0
| LENGTH: 352
                                                                                                                                                                                     125
                                                                                                                                                                                                                                                                                   185
                                                                                                                                                                                                                                                                                                           246 KITVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                                                         63
                                                                                                                                                                                     66 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS
                                                                                                                                                                                                                   64 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                              186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                      239 KITVILILAFFACWLPYYIGISIDSFILLBIIKQGCEFENTVHKWISITEALAFFHCCLN
                                                                                             6 VSIYTSDNYSBEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                     4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLDTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                   VLILAFISLDRYLAIVHATNSQRPRKLLABKAVYVGVWIPALLLTIPDFIFADVSQGDIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PILYAFLGAKFKSSAQHAINSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
  Length 352;
89.9%; Score 1678.5; DB 12;
90.1%; Pred. No. 1.1e-145;
tive 19; Mismatches 11; II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1678.5; DB 12;
Pred. No. 1.1e-145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89.9%;
90.1%;
  Query Match
Best Local Similarity 90.1%
Matches 319; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
US-10-181-906-10
                                                                                                                                                                                                                                                                                   126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 306
                                                                                               ઠે
                                                                                                                                       g
                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
```

Qy 246 KTTVILILAFFACMLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305	RESULT 8  US-10-151-274-4  Sequence 4, Application US/10151274  Sedience 4, Application No. US2030064071A1  SEDIENCE INFORMATION:  APPLICANT: Won, Donglas S.  APPLICANT: Wan, Donglas S.  APPLICANT: Wan, Copy, Yvette  APPLICANT: Went Kooyk, Yvette  APPLICANT: Went Kooyk, Yvette  APPLICANT: Went Kooyk, Yvette  APPLICANT: Went Kooyk, Yvette  APPLICANT: WIND COPY INTO  TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF RETROVIRAL ENTRY  TITLE OF INVENTION: CELLS  TITLE OF INVENTION: CELLS  TITLE OF INVENTION: CELLS  CURRENT APPLICATION WUMBER: US/10/151,274  CURRENT FILING DATE: 2002-05-20  PRIOR APPLICATION NUMBER: US/09/517,605  NUMBER OF SED ID NOS: 17	SOFTWARE: PatentIn Ver. 2.0 ; SRQ ID NO 4 ; LENGTH: 352 ; TYPE: PRI 5 ; ORGANISM: Homo sapiens US-10-151-274-4 Query Match Best Local Similarity 90.1%; Pred. No. 1.1e-145; Matches 319; Conservative 19; Mismatches 11; Indels 5; Gaps 1;	12 6 5 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	Oy 126 VLILAFISLDRYLAIVHATNSORPRILLAEKAVYYGVWIPALLITIPDFIFADVSGGDIS 185	CY 246 KITULILABFACWLPYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305  Db 239 KITVILILAFFACWLPYXIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 296  CY 306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359	RESULT 9 US-10-170-385-331 Sequence 331, Application US/10170385 Publication No. US200330203372A1 GENERAL INFORMATION: APPLICANT: Ward, Neil Raymond APPLICANT: Wundy, Christopher Robert APPLICANT: Mundy, Christopher Robert APPLICANT: Wan, On APPLICANT: Harris, Robert Alan
Matches 319; Conservative 19; Mismatches 11; Indels 5; Gaps 1;  Qy 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 65	CY 126 VLILAFISIDRYLAIVHATNSORPRKLLABKAVYGVWIPALLITIPDFIFADVSGGDIS 185	US-09-813-651B-85  ) Sequence 85, Application US/09813651B  ) Sequence 86, Application US/09813651B  ) Publication No. US20030018438A1  ) GENERAL INFORMATION:  ) APPLICANT: Netsor, Oarol  ) APPLICANT: Tan Hehir, Christina  ) APPLICANT: Rates, Steven  ) TILE OF INVENTION: Binding Compounds and Methods for Identifying Binding Compounds  ) FILE REFERENCE: CNS-007	; CURRENT APPLICATION WUMBER: US/09/813,651B ; CURRENT FILING DATE: 2001-03-20 ; PRIOR APPLICATION WUMBER: US 6//190,946 ; PRIOR FILING DATE: 2000-03-21 ; PRIOR APPLICATION WUMBER: US 60/190,996 ; PRIOR FILING DATE: 2000-03-21 ; PRIOR FILING DATE: 2000-03-21 ; PRIOR APPLICATION WUMBER: US 60/191,299 ; NUMBER OF SEQ ID NOS: 85		QUESTY MATCH  Best Local Similarity 90.1%; Score 1678.5; DB 12; Length 352;  Batches 319; Conservative 19; Mismatches 11; Indels 5; Gaps 1;  Qy 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFILFLTGIVGNGLVILVM 65	64 GYQKKLRSMTDKYRLHLSVADLLEVILLPFWAVDAVANWYFGNFLCKAVHVIYT 126 VLILAFISLDRYLAIVHATNSQRPRKLLABKAVVGVWIPALLTIPDFIFADV 124 VLILAFISLDRYLAIVHATNSQRPRKLLABKVVYGVWIPALLTIPDFIFADV 186 QGDDRYLCDRLYPDSLWMVVPQFQHIMVGLLLPGTVILSCYCIIISKLSHSKGH :

us-Uy-36/-U52-2.rapp

US-10-245-850-1

US-10-245-850-1

Sequence 1, Application US/10245850

PUBLICANT: No. US20030124628A1

GENERAL INFORMATION:

APPLICANT: Burns, Jennifer M.

APPLICANT: Miao, Zhenhua

APPLICANT: Wei, Zhenhua

APPLICANT: Meao, Zhenhua

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall, Thomas J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall J.

APPLICANT: Schall 245 66 GYOKKIRSMTDKYRLHISVADILFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125 64 GYQXKIRSMTDKYRLHLSVADLLEVITLEPWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123 66 GYOKKIRSMIDKYRIHLSVADILFVITLPFWAVDAWADWYFGKFLCKAVHIIYTVNLYSS 125 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185 64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123 4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVW 63 63 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIIYFIIFLTGIVGNGLVILVM Query Match 89.9%; Score 1678.5; DB 14; Length 352; Best Local Similarity 90.1%; Pred. No. 1.1e-145; Matches 319; Conservative 19; Mismatches 11; Indels 5;

299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352	Db 2:	
306 PILYAFIGAKFKSSAQHAINSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359	Qy	
239 KTTVILILAFFACWLDYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 298	Db 2:	
246 KTTVILILAFFACWLPYVGISIDSFILLGVIKQGCDFBSIVHKWISITBALAFFHCCLN 305	.Qy 2	
79 BADDRYICDRFYPNDLWVVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 238	1,	
186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245	0y 1.	
124 VLILAFISLDRYLAIVHAINSQRFRKLLAEKVVYVGVWIPALLTIPDFIFANVS 1/8	DD CD	

RESULT 12
US-10-251-703-38

is Sequence 38, Application US/10251703

sequence 38, Application US/10251703

sequence 38, Application No. US20030148449A1

sequence 38, Application No. US20030148449A1

sequence 38, Application No. US2003148449A1

sequence 38, Application No. US2003148449A1

string CONTENT: Covic, Lidita

rities of INVENTION: Methods of Activating and Inhibiting G Protein Coupled

rities of INVENTION: Methods of Activating and Inhibiting G Protein Coupled

rities of INVENTION: Methods of Activating and Inhibiting G Protein Coupled

rities of INVENTION: Receptors Using the Same

rities of INVENTION: NAMER: US/10/251,703

current Application NUMBER: 00/203

prior Filing Date: 2001-04-23

prior Filing Date: 2000-04-21

NUMBER OF SEQ ID NOS: 41

sequence

sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in the Sequence

read in

Query Match
Best Local Similarity 90.1%; Pred. No. 1.1e-145;
Matches 319; Conservative 19; Mismatches 11; Indels 5; Gaps 1;

126 VIILAPISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLITIPDFIFADVSQGDIS 185 246 KTTVILLLAFFACWLPYYVGISIDSFILLGVIKQGCDFBSIVHKWISITBALAFFHCCLN 305 298 66 GYOKKIRSMIDKYRLHLSVADLLFVIILPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125 64 GYQKKLRSMIDKYRLHISVADILFVITLPFWAVDAVANWYFGNFLCKAVHVIYIVNLYSS 123 186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245 6 VSIYTSDNYSEBYGSGDYDSNKEPCFRDENVHFNRIFLFFIFITFLTGIVGNGLVILVM 65 4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVW 63 239 KTTVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN g ò g ò g g δ

306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359

δ

US-10-021-660-123

US-10-021-660-123

Sequence 123, Application US/10021660

Publication No. US20030152926A1

GENERAL INFORMATION:

APPLICANT: Mirchard

APPLICANT: Watson, Susan R.

ITILE OF INVENTION: Compositions and Methods of Diagnosis of Angiogenesis,

TITLE OF INVENTION: Compositions and Methods of Screening for Angiogenesis,

TITLE OF INVENTION: Modulators

FILE REPERENCE: 018501-000710US

CURRENT APPLICATION NUMBER: US/10/021,660

CURRENT FILING DATE: 2001-02-14

PRIOR APPLICATION NUMBER: US/09/784,356

PRIOR APPLICATION NUMBER: US/09/784,356

PRIOR FILING DATE: 2000-08-11

NUMBER OF SEQ ID NOS: 135

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 123

LENGTH: 352

TYPE: PRT

CRANISM: Homo sapiens

US-10-021-660-123

QUERT Match

Bast Local Similarity 90.18; Pred. No. 1.1e-145;

Matches 319; Conservative 19; Mismatches 11; Indels 5; Gaps 1;

g

ò

4 ISTYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTTYSIIFLTGIVGNGLVILVM 63

6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM

126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185

RESULT 14
US-10-014-322A-126
US-10-014-322A-126
Sequence 126, Application US/10014322A
Sequence 126, Application No. US20030167129A1
Publication No. US20030167129A1
GENERAL INFORMATION:
APPLICANT: Nestor, Jr., John
APPLICANT: Tan Hehir, Christina
APPLICANT: Rates Steven
APPLICANT: Rates Steven
APPLICANT: Rates Steven
APPLICANT: Rates Steven
APPLICANT: CNS-008
ITILE OF INVENTION: Binding Compounds and Methods for Identifying Binding Compounds
FILE REFERENCE: CNS-008
CURRENT FILING DATE: 2002-07-08
PRIOR PLICATION NUMBER: US 60/243,587
PRIOR PLICATION NUMBER: US 09/813,651
PRIOR PLILING DATE: 2001-03-20

RESULT 13

```
RESULT 15

US-10-239-423-79

US-10-239-423-79

SQUEDICATION NO. US2000186889A1

SQUEDICATION NO. US2000186889A1

GENERAL INFORMATION:

APPLICANT: FORSEMANN, Wolf-Georg; FORSEMANN, Ulf; ADERWANN, Knut;

APPLICANT: HETTLAND, Aleksandra, SPODSBERG, Nikolaj

TITLE OF INVENTION: Cell Surface Proteome of Tumor and Inflammation Cells and TITLE OF INVENTION: For Treating Tumor Diseases and Inflammation Cells and TITLE OF INVENTION: Preferably with the Aid of Specific Chemckine

TITLE OF INVENTION: Preferably with the Aid of Specific Chemckine

TITLE OF INVENTION: Receptor Analysis and Chemckine Receptor/Ligand Interaction

FILE REFERENCE: 0222-09-23

CURRENT APPLICATION NUMBER: DE10016013.1

PRIOR FILING DATE: 2000-03-31

NUMBER OF SEQ ID NOS: 84

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 79

LENGTH: 352

LENGTH: 352

LENGTH: 352

TYPE: PRI

CORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                    1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  186 QGDDRYICDRLYPDSLWMVYFQPQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     66 GYOKKIRSMIDKYRIHLSVADILFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                             8
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 ISIYTSDNYTEEMGSGDYDSWKEPCPREENANFNKIPLPTIYSIIFLTGIVGNGLVILVW 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: Description of Artificial Sequence: CTHER INFORMATION: Amino Acid Sequence for the Generation of Antibodies US-10-239-423-79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 VSIYISDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLIGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                               Query Match

Best Local Similarity 90.1%; Pred. No. 1.1e-145;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match

89.9%; Score 1678.5; DB 14; Length 352;
Best Local Similarity 90.1%; Pred. No. 1.1e-145;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
PRIOR APPLICATION NUMBER: US 09/813,653
PRIOR FILING DATE: 2001-03-20
PRIOR PPLICATION NUMBER: US 09/813,448
PRIOR FILING DATE: 2001-03-20
NUMBER OF SEQ ID NOS: 126
SOFTWARE: Patentin version 3.0
ENGUTH: 352
                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                     US-10-014-322A-126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
```

٦,

Gaps

	306 PILVAFLGAKFKSAQHALNSMSRGSSLKILSKGRKGGHSSVGTESESSSFNSS JS9 	30 6 20 8 30 8	8 6
298		239	g
305	KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN	246	ò
238	: FADDRYICDREYPNDLWVVVFQFQHIMVGLILFGIVILSCYCIIISKLSHSKGHQKRKAL	179	g
245	QGDDRYICDRLYPDSLWMVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL	186	ઠે
178	VLILAFISLDRYLAIVHATNSQRPRKULAEKVVYVGVMIPALLITIPDFIFANVS	124	g
185	126 VLILAPISLDRYLAIVHATNSQRPRKLLAEKAVYVGVMIPALLLTIPDFIFADVSQGDIS		ò
123		64	ΩÞ
125		99	ò
63		4	qq
ი დ		9	ò

Search completed: May 17, 2004, 22:38:46 Job time : 549 secs

us-09-367-052-2.rpr

```
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
```

OM protein - protein search, using sw model

May 17, 2004, 21:33:47; Search time 44 Seconds (without alignments) 784.835 Million cell updates/sec Run on:

US-09-367-052-2 1867 1 MEPISVSIYTSDNYSEEVGS......KRGGHSSVSTESESSSFHSS 359 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283366 segs, 96191526 residues Searched:

283366 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

PIR 78:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	fusin (LESTRA) - c	neuropeptide Y/pep	neuropeptide Y/pep	interferon-inducib	chemokine (C-C) re	interleukin-8 rece	5	interleukin-8 rece	interleukin-8 rece	interleukin-8 rece	lymphocyte-specifi	G protein-coupled	orphan G protein-c	chemokine (C-C) re	MDCR15 protein - h	interleukin-8 rece	interleukin-8 rece		G protein-coupled	G protein-coupled	G protein-coupled	G protein-coupled	probable G protein	e e	G protein-coupled	ņ	_	-) e	chemokine (C-C) re
SUMMARIES	ID	G00048	A45747	S28787	JE0349	A57160	JQ1231	A55735	842096	A53752	A53611	B55735	JC5068	JC4304	JC4587	856162	A48921	A39445	ശ	ഹ	$^{\circ}$	N	ഹ	158186	845	506	JN0621	A43113	C244	G02436
	DB	7	N	~	~	N	N	~	Ŋ	7	7	~	~	~	0	0	0	~	N	0	N	7	7	N	7	7	7	Ŋ	~	7
	Length	LO.	Ę	Ŋ	ø	φ	ĽΩ	378	'n	S	ø	7	9	S	9	a	Ŋ	S	7	7	~	7	ω	ú	7	n	350	S	9	S
de	Query Match	0.06	φ.	7	ä	。	ი	29.5	٩.	٩.	٠.	8	8	œ.	ä	œ.	æ	8	œ.	ζ.	ζ.	ζ.		è.	ė	ů.	ů.	'n.	ď.	•
	Score	79.	678.	63	85.	70.	뎚.	550.5	47.	44	44.	37.	m	ന	n	26.	33.	522.5	22	18.	17.	08.	O	O	o	σı	484	'n.	•	76.
	Result No.	п	7	m	4	Ŋ	Q	7	80	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	29

angiotensin II rec chemokine (C-C) re	angiotensin II rec	angiotensin II rec	G protein-coupled	angiotensin II rec	Ħ	II	ΙI	angiotensin II rec	Η	interleukin-8 rece	G protein-coupled		angiotensin II rec	angiotensin II rec
S15403 A45177	JC1104	JN0694	A30341	S44425	A42656	JH0621	JC2134	A48857	JQ1516	A23669	A39714	I49341	I39418	JC1194
359	359 2					359 2			359 2				359 2	359 2
<b>4</b> M	60	4.8	24.6	4.6	4.6	4.6	4.6	4.5	4.3	4.3	4.0	4.0	3,9	23.7
25.	24	Ŋ	N	7	u	Ň	Ñ	7	C	7	Ġ	~	N	N
473.5 25.		463.5 2	460 2		459.5 2		459.5 2		453.5 2		448 2		445.5 2	•

Ĕ	
z	
ā	
E	
z	
O	
н	
J	
ď	

neuropeptide Y/peptide YY receptor Y3 - human N/Alternate names: fusin; HM89; leukocyte-derived seven-transmembrane receptor LESTR; C;Species: Homo sapiens (man) C;Cycleis: Homo sapiense (man) C;Date: 03-May-1994 #sequence revision 03-May-1994 #text change 05-Nov-1999 C;Accession: A45747; A53103; I53006; I59444; I69203; S32761 RESULT 2 A45747

re

```
Query Match 31.4%; Score 585.5; DB 2; Best Local Similarity 35.4%; Pred. No. 8.2e-44; Matches 123; Conservative 69; Mismatches 130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                245
                                                                                                                                                               RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                       ò
                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                      R;Federsppiel, B.; Melhado, I.G.; Duncan, A.M.V.; Delaney, A.; Schappert, K.; Clark-Lewigenomics 16, 707-712, 1993
Genomics 16, 707-712, 1993
A;Title: Molecular cloning of the cDNA and chromosomal localization of the gene for a pu A;Reference number: A45747; MUID:93315164; PMID:8325644
A;Accession: A45747
A;Accession: A45747
A;Accession: A45747
A;Reference mRNA
A;Residues: 1-352 <FED>
A;Cross-references: GB:M99293; NID:g292516; PIDN:AAA16617.1; PID:g292517
A;Cross-references: GB:M99293; NID:g292516; PIDN:AAA16617.1; PID:g292517
A;Cross-references: GB:M99293; NID:g292516; PIDN:AAA16617.1; PID:g292517
A;Cross-references: GB:M99293; NID:g292516; PIDN:AAA16617.1; PID:g292517
A;Cross-references: GB:M99293; NID:g292516; PIDN:AAA16617.1; PID:g292517
A;Title: Cloning of a human seven-transmembrane domain receptor, LESTR, that is highly each and a human geven-transmembrane domain receptor, LESTR, that is highly each and a human geven-transmembrane domain receptor, LESTR, that is highly each and a human geven-transmembrane domain receptor, LESTR, that is highly each and a human geven-transmembrane domain receptor, LESTR, that is highly each and a human geven-transmembrane domain receptor, LESTR, that is highly each and a human geven-transmembrane domain receptor, LESTR, that is highly and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a human general and a huma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GYQKKLRSMIDKYRLHISVADILFVITLPFWAVDAMADWYFGKFICKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64 GYQKKLRSMTDKYRLHLSVADLLEVITLPFWAVDAVANWYFGNFLCKAVHVIYIVNLYSS 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              124 VLILAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLITIPDFIFANV----S 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              186 QGDDRYICDRLYPDSLWMVVFQPQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VLILAFISLDRYLAIVHAINSQRPRKLLAEKAVYVGVWIPALLLIIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KITVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              XTTVILLIAFFACMLPYYIGISIDSFILLEIIKQGCEFENTVHXWISITEALAFFHCCLN 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6 VSIYTSDNYSEEVGSGDYDSNXEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ى
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 2; Length 352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 89.9%; Score 1678.5; DB 2 Best Local Similarity 90.1%; Pred. No. 6.5e-140; Matches 319; Conservative 19; Mismatches 11;
                                                                                                                                                                                                                                                                                                         A; Accession: A53103
A; Molecule type: mRl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (IP-10) receptor and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
                                                                                                                                                                                                                                                                                                                                   ď
                                                                                                                                                                                                                                                                                                                                                                                                                                             123
                                                                                                                                                                                                                                                                                                                                                                                                                    124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     239 LKTTVILILIFFFACWLPYYIGISIDSPILLEIIQQGCEFESTVHKWISITBALAFFHCCL 298
                                                                                                                                                                                                                                                                                                                                                               64
                                                                                                                                                                                                                                                                                                                                                                                        63
                                                                                       64 MGYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGKFLCKAVHVIYTVNLYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              185 SQGDDRYICDRLYPDSLWWVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKA
                                                                                                                                                                                                                                                                                                                                                                              4 IRIFTSDNYTEDDLGSGDYDSMKEPCFREENAHFNRIFLEPTVYSIIFLTGIVGNGLVILV
                                                                                                                                                                                                                                                                                                                                                                                                                    MGYQKKLRSMTDKYRLHLSVADLLFV1TLPFWAVDAMADWYFGKFLCKAVH11YTVNLYS
                                                                                                                                                                                                                                                                                                                                                             VSIYTSDNYSE-EVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         125 SVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LKTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             305 NPILYAFLGAKFKSSAQHALMSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          299 NPILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 353
                299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSFHSS
306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS
                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 367;
                                                                                                                                                                                                                                                                                                          Length 353;
                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                     Query Match

87.4%; Score 1631; DB 2;
Best Local Similarity 86.8%; Pred. No. 9.8e-136;
Matches 308; Conservative 26; Mismatches 15;
```

QY 119 TVNLYSSVLILAFISLDRYLAIVHATNSQRPRKILAEKAVYVGVWIPALLLTIPDFIFAD 178  Db 118 LVGFYSGIFFVMLMSIDRYLAIVHAVESLRATLTYGVITSLATWSVAVFASLPGFLFST 177  QY 179 VSQGDISGGDRXICDRLYPDSLWMVVEQFOLIMVGLILDPGIVLLSGYCIIISKLSHS 236  Db 178 CYTERNHTY-CKTKYSLNSTTWKVLSSLEINILGLVIPLGIMLFCYSMIIRTLGHC 232  QY 237 KGHQKRKALKTTVILILAFFACWLPYYVGISIDSFILLGVIRGCOFESIVHKWISITEA 296    1	RESULT 6 JO1231 interleukin-8 receptor - rabbit C.Species: Oryctolagus cuniculus (domestic rabbit) C.Species: Oryctolagus cuniculus (domestic rabbit) C.Accession: J01231, A46483 C.Accession: J01231, A46483 R.Beckmann, M.P.; Munger, W.E.; Kozlosky, C.; VandenBos, T.; Price, V.; Lyman, S.; Gerar	A.Title: Molecular Characterization of the interleukin-8 receptor.  A.Ancessidnen. Biophys. Res.  A.Ancessidnen. J01231; MUID:91378994; PMID:1899400  A.Ancessidnen. J01231; MUID:918994; PMID:1899400  A.Ancessidnen. J01231  A.Ancessidnen. J01231  A.Ancessidnen. J01231  A.Ancessidnen. J01231  A.Ancessidnen. J01231  A.Ancessidnen. J01231  A.Ancessidnen. J01231  A.Ancessidnen. J01235  A.Ancessidnen. J01231  A.Ancessidnen. J01231  A.Ancessidnen. J01231  A.Ancessidnen. J01231  A.Ancessidnen. J01231  A.Ancessidnen. J01231  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ancessidnen. A46483  A.Ance	Db 311 AFIGONFRNGFLKMLAARGLISKEFLTRHRVTSYTSSSTNVPSN 354
QY 17 EVGSGDYD-SNKEPCFRDENVHFNRIPLPTIFILFGIVGNGLVILVNGYQKGLRSMT 75  1	250 ILILAPPACYLLPYYVGISIDSFILLGVIKQCDFESIVHKWISITEALAFFHCCLNPILY  1::	RESULT 5 A55/160 Chemicine (C-C) receptor 4 - human N/ASIGE (C-C) receptor 4 - human N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N/ASIGE (C-C) N	DD 58 SVVVLVLFKYKRLRSMTDVYLLNLAISDLLFVFSLPFWGYYAADQWVFGLGLCKNISWMY 117

us-09-367-052-2.rpr

```
A53752
interleukin-8 receptor (clone 5Bla) - rabbit
C;pecies: Od-Jan-1995 #sequence_revision Of-Jan-1995 #text_change O5-Nov-1999
C;Accession: A53752
R;prado, G.N.; Thomas, K.N.; Suzuki, H.; LaRosa, G.J.; Wilkinson, N.; Folco, E.; Navarro, M.; Biol. Chem. 269, 12391-1234, 1394
A;Title: Molecular characterization of a novel rabbit interleukin-8 receptor isotype.
A;Reference number. A53752; MUID:94230294; PMID:8175642
A;Reference number: A53752; MUID:94230294; PMID:8175642
A;Reference sumber: A53752
A;Residues: preliminary
A;Molecule fype: mRNA
A;Residues: 1-358 <PRA>
A;Residues: 1-358 <PRA>
A;Cross-references: GB:L24445; NID:9437661; PIDN:AAA31378.1; PID:9437662
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                                                                                      183 --RITVKANPSTVVC---YENIGNNTSKWRVVIRILPQTYGFLLPLIMLFCYGFTLRTL 237
                                                                                                                                                                                                                                                                                                                                                                                                                           63 GNSLVMLVILYSRSTCSVTDVXLLNLAIADLLFATTLPIWAASKVHGWTFGTPLCKVVSL 122
                                 234 SHSKGHOKRKALKTTVILILAFFACWLPYYVGISIDSFILLGVIKOGCDFESIVHKWISI 293
                                                                                                                                                                                                                                                                                                                           232 KLSHSKGHQKRKALKTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWI 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     235 TLPQAHMGQKHRAMRVIFAVVLIFLICWLPYNLVILTDTLMRTHVIQETCBRRNDIDRAL 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     292 SITEALAFFHCCLNPILYAFLGAKF----KSSAQHALNSMSRGSSLKILSKGKRGGHSS 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  59 GLVILVMGYQKKLRSMTDKYRLHLSVADLLFVITLFFWAVDAMADWYFGKFLCKAVHIIY 118
                                                                                                    119 TVNLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFAD 178
                                                                                                                                                                                                 179 VSQGDISQGDDRYICDRLYPD----SLWWVFQFQHIMVGLILPGIVILSCYCIIISKL 233
                                                                                                                                                                                                                                                                                                                                                                                                 294 TEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSK------GKRGGH 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9 YISDNYSEEVGSGDYDS------NKEPCFRDENVHFNRIFLPTIYFIIFLTGIV 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57 GNGLVILVMGYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         117 IYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         177 ADVSQGDISQGDDRYICDRLYPD----SLWMVVFQFQHIMVGLILPGIVILSCYCIIIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 FTWENYSYEDFFGDFSNYSYSTDLPPTLLDSAPC-RSESLETNSYVULITYILVFLLSLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 29.2%; Score 544.5; DB 2; Length 358; Best Local Similarity 34.7%; Pred. No. 3.2e-40; Matches 128; Conservative 70; Mismatches 132; Indels 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             343 SFVGSSSANTS 353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                345 SSVSTESESSS 355
                                                                                                                                         ď
                                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8
          8 6
                                                                                       8
                                                                                                                                                                                                    9 6
                                                                                                                                                                                                                                                                                    8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
RESULT 7
A55735
G procies: Mus musculus (house mouse)
C; Species: Mus musculus (house mouse)
C; Date: 07-Jul-1995 #sequence_revision 07-Jul-1995 #text_change 24-Nov-1999
C; Date: 07-Jul-1995 #sequence_revision 07-Jul-1995 #text_change 24-Nov-1999
C; Date: 07-Jul-1995 #sequence_revision 07-Jul-1995 #text_change 24-Nov-1999
C; Accession: A55735
R; Schweickart, VL.; Raport, C.J.; Godiska, R.; Byers, M.G.; Eddy Jr., R.L.; Shows, T.B.
Genomics 23, 643-650, 1994
A; Title: Cloning of human and mouse EBII, a lymphoid-specific G-protein-coupled receptor
A; Reference number: A55735; MUID:95154835; PMID:7851893
A; Accession: A55735
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-378 csCH3
A; Residues: 1-378 csCH3
A; Cross-references: GB:L31580; NID:9468340; PIDN:AAA74232.1; PID:9468341
C; Superfamily: Vertebrate rhodopsin
C; Keywords: G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 8
$42.096
interleukin-8 receptor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Species: Rattus norvegicus (Norway rat)
C;Species: O.5-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 26-Aug-1999
C;Accession: 842.096
R;Gobl, A.E.; Wang, S.; Zhou, Y.; Oeberg, K.
submitted to the EMBL Data Library, Rebruary 1994
A;Description: Molecular cloning of the rat IL.8 receptor.
A;Recence number: 842.096
A;Status: preliminary
A;Molecule type: mRNA
A;Residus: 1-256 c4GDB
A;Cross-references: EMBL:X77797
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         206 DILRCSLVSAQVEALITIQVAQMVFGFLVPMLAMSFCYLIIIRTLLQARNFERNKAIKVI 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKTT 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           249 VILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPIL 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       266 IAVVVVFIVFQLPYNGVVLAQTVANFNITNSSCETSKQINIAYDVTYSLASVRCCVNPFL 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               71 LRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVLILA 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29 IDDYIGENTIVDYTLYESVCFKKDVRNFKAMFLPLMYSVICFVGLLGNGLVILTYIYFKR 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12 DNYS-EEVGSGDYD-----SNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGN 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11 SDNYSSEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGYQKK 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       326 YAFIGVKFRSDLFKLFKDLGCLSQERLRHWSSCRHVRNASVSMEAETTTTFS 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        309 YAFLGAKFKSSAQHALNSMSRGSS--LKILSKGKRGGHSSVSTESESSSFHS 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 29.3%; Score 547.5; DB 2; Length 356; Best Local Similarity 34.8%; Pred. No. 1.7e-40; Matches 129; Conservative 67; Mismatches 124; Indels 51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 378;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 29.5%; Score 550.5; DB 2; Length Best Local Similarity 33.2%; Pred. No. 1e-40; Matches 117; Conservative 78; Mismatches 150; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         පු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

231

347 VSTESESSS 355

g ) , ,

Gaps

39;

12 RESULT SHSKGHOKRKALKTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISI 293

g ò යි පි 셤 ઠે g

```
A; Molecule type: mRNA
A; Residues: 1-355 (RAP>
A; Residues: 1-355 (RAP>
A; Residues: 1-355 (RAP>
A; Residues: 1-355 (RAP>
A; Residues: 1-355 (RAP>
A; Residues: 1-355 (RAP>
A; Residues: 1-355 (RAP>
A; Residues: 1-355 (RAP)
A; Residues: 1-355 (RAP)
A; Residues: 1-355 (RAP)
A; Residues: 1-355 (RAP)
C; Comment: This protein is a cell-surface receptor which recognizes extracellular signal: C; Comment: This protein is a key regulator of many immune and homeostatic responses, and C; Genetics: A; Genetics: A; Genetics: A; Genetics: A; Genetics: A; Genetics: A; Genetics: A; Genetics: A; Genetics: A; Genetics: A; Genetics: A; Genetics: A; Genetics: C; Reywords: G protein-coupled receptor; lymphokine; transmembrane #status predicted <TM2>
F; Genetics: C; Reywords: G protein-coupled receptor; lymphokine; transmembrane #status predicted <TM2>
F; Genetics: C; Reywords: G protein-coupled receptor; C; Reywords: G protein reansmembrane #status predicted <TM3>
F; Genetics: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywords: C; Reywor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FISLDRYLAIVHAINSQRPRKLLABKAVYVGVWIPALLLIIPDFIFADVSQGDISQGDDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --CLGDYPEVLQEIWPVLRNVETNFLGFLLFLELMSYCYFRIIQTLFSCKNHKKAKAIKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            233 ILLYVIVFFLEWIPYNVMIFLETIKLYDFF-PSCDMRKDIRLALSVTETVAFSHCCLNPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LYAFLGAKFKSSAQHALNSMSRGSSLKIL------SKGKRGGHSSVSTESESSSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12 DNYSEEVGSG-DYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGYQKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 DOFPESVTENFEYDDLAEACYIGDIVVFGTVFLSIFYSVIFAIGLVGNLLVVFALTNSKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71 LRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVLILA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  122 VISIDRYLAIVLAANSMNRRVQHGVTISLGVWAAAILVAAPQFMFTKQKENB-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            191 YICDRLYPD----SLWMVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                248 TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28.5%; Score 533; DB 2; L 33.1%; Pred. No. 3.2e-39; live 65; Mismatches 146;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 33.17
Matches 120; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chemokine (C-C) receptor 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       357 HSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     상
원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ç
                                                                                                                                                                                                                                                                                                        receptor-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Orphan G protein-coupled receptor - human

NiAlternate names: V28 protein
Cispecies: Homo sapiens (man)
Cispacies: Homo sapiens (man)
Cispacies: Howo-1995 #sequence_revision 08-Feb-1996 #text_change 19-May-2000
Cisacession: JC4304
Rikaport, C.J.; Schweickart, V.L.; Eddy Jr., R.L.; Shows, T.B.; Gray, P.W.
Rikaport, C.J.; Schweickart, V.L.; Eddy Jr., R.L.; Shows, T.B.; Gray, P.W.
A;Title: The orphan G-protein-coupled receptor-encoding gene V28 is closely related (A;Reference number: JC4304; MUID:96011651; PMID:7590284
Gprotein-coupled receptor CKR-L3 - human
Cjspeines: Homo spains (man)
Cjspeines: Homo spains (man)
Cjspeines: Homo spains (man)
Cjspeines: Homo spains (man)
Cjspeines: Homo spains (man)
Cjspeine: Judan-1997 #sequence_revision 31-Jan-1997 #text_change 21-Jul-2000
CjAccession: UG5068
Rjaballos, A.; Varona, R.; Gutierrez, U.; Lind, P.; Marquez, G.
Bjochem. Biophys. Res. Commun. 227, 846-853, 1996
A;Title: Molecular cloning and RNA expression of two new human chemokine receptor-A;Reference number: UG5068
A;Molecule type: DNA
A;Reference number: UG5068
A;Molecule type: DNA
A;Residues: 1-369 «ZAB>
A;Cross-references: EMBL:Z79784; NID:g1668737; PIDN:CAB02144.1; PID:g1668738
A;Cross-references: EMBL:Z79784; NID:g1668737; PIDN:CAB02144.1; PID:g1668738
A;Cross-references: EMBL:Z79784; NID:g1668737; GPR-CY4
A;Cross-references: GDB:5370639; OMIN:601835
A;Map position: Gq2-6q2,
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Gonetics:
C;Go
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SQGDDRYICDRLY----PDSLWMVVFQPQHIMVGLILPGIVILSCYCIIISKLSHSKGHQ 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                186 TÓGSD--VČEPKYQTVSEPIRWKLIMLGLELLFGFFIPLMFMIFCYTFIVKTLVQAQNSK 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KRKALKTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILS-----KGKRGGHSSVSTESES 353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -----RNYFLKILKDLWCVRRKYKSSGFSCAGRYSEN 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QKKLRSMTDKYRLHLSVADLLFVITLPFWAVD-AMADWYFGKFLCKAVHIIYTVNLYSSV 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             69 YKKARSMIDVYLLNMAIADILEVLTLPFWAVSHATGAWVFSNATCKLLKGIYAINFNCGM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TSDNYSEEVGSGDY - - DSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SSEDYFVSVNTSYYSVDSEMLLCSLQEVRQFSRLFVPIAYSLICVFGLLGNILVVITFAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LILAFISLDRYLAIVHATNS--QRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28.7%; Score 535; DB 2; Length 36 33.9%; Pred. No. 2.38-39; ative 72; Mismatches 136; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HCCLNPVLYAFIGOKF-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similaring Articles 124; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ISROTS 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local 8
```

a ò g ò ద ò g δ g ò g ò g

ઠે

190 174 247 232 307 291 356 344

70 61

32;

Length 355; Indels

```
C.Species: Mus musculus (house mouse)
C.Species: Mus musculus (house mouse)
C.Species: Mus musculus (house mouse)
C.Species: Mus musculus (house mouse)
C.Species: 08-Mar-1996 #sequence_revision 19-Apr-1996 #text_change 20-Jun-2000
C.Species: 08-Mar-1996 #sequence_revision 19-Apr-1996 #text_change 20-Jun-2000
C.Species: 08-Mar-1996 #sequence_revision 10-Species: 08-Mar-1996 #sequence.
R.Hoogewerff, A.G.; Black, D.; Proudfoot, A.E.I.; Wells, T.N.C.; Power, C.A.
Biochem. Biophys. Res. Commun. 218, 337-343, 1996
A.Title: Molecular cloning of murine CC CKR-4 and high affinity binding of chemokines to A.Reference number: JC4587, MUID:96136324; PMID:8673157
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Accession: JC4587
A.Acces
```

Search completed: May 17, 2004, 22:19:54 Job time : 45 secs Ribarella, L.; Loetscher, M.; Tobler, A.; Baggiolini, M.; Moser, B.
Biohem. J. 309, 773-779, 1995
A;Title: Sequence variation of a novel heptahelical leucocyte receptor through alternation. Shocessin: S56162; MUID: 95366951; PMID: 7639692
A;Reference number: S56162
A;Accession: S56162
A;Status: preliminary; nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-327 <BAR>
A;Residues: 1-327 <BAR> #status predicted #status predicted 83 SVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVLILAFISLDRYLAIVH 142 82 AISDLLFVLSLPPWGYYAADQWVFGLGLCKIVSMMYLVGFYSGIFFIMLMSIDRYLAIVH 141 143 ATNSORPRKILABKAVYVGVWIPALLLTIPDFIFADVSQGDISQGDDRYICDRLYP--DS 200 142 AVFSLKARTLIYGVITSLITWSVAVPASLPGLLFSTC----YTEHNHTY-CKTQYSVNST 196 201 LWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKTTVILILAFFACWL 260 197 TWKVLSSLEINVLGLLIPLGIMLFWYSMIIRTLQHCKNEKKNRAVRMIFGVVVLFLGFWT 256 64 AEGSVGWVLGTFLCKTVIALHKVNFYCSSLLLACIAVDRYLAIVHAVHAYRHRRLLSIHI 123 158 VYVGVWIPALLLTIPDFIFADVSQGDISQGDDR--YICDRLYPDSLWMVVFQFQHIMVGL 215 216 ILPGIVILSCYCIIISKLSHSKGH-QKRKALKTTVILILAFFACWLPYYVGISIDSFILL 274 275 GVIKQGCDFESIVHKWISITEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLK 334 98 VDAMADWYFGKFLCKAVHIIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKA 157 4 FKAVFVPVAYSLIFLLGVIGNVLVLVILERHRQTRSSTETFLFHLAVADLLLVFILPFAV 63 38 FNRIFLPTIYFIIFLTGIVGNGLVILVMGYQKKLRSMTDKYRLHLSVADLLFVITLPFWA 97 261 PYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPILYAFLGAKFK 317 Species: Homo sapiens (man)
Date: 27-Oct-1995 #sequence\_revision 03-Nov-1995 #text\_change 08-Oct-1999
Accession: S56162 23 YDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGYQKKLRSMTDKYRLHL A;Cross-references: EMBL:X68829; NID:g840783; PIDN:CAA48723.1; PID:g840784 C;Superfamily: vertebrate rhodopsin 5; Gaps Gaps F;145/Binding site: phosphate (Ser) (covalent) (by protein kinase C) F;321/Binding site: phosphate (Thr) (covalent) (by protein kinase C) Query Match 28.2%; Score 526.5; DB 2; Length 327; Best Local Similarity 34.6%; Pred. No. 1.1e-38; Matches 111; Conservative 66; Mismatches 139; Indels 5. DB 2; Length 360; Query Match 28.4%; Score 530; DB 2; Length 36 Best Local Similarity 36.4%; Pred. No. 6e-39; Matches 108; Conservative 62; Mismatches 119; Indels : ||||||::: 303 LCQLFPSWRRSSLS-ESENAT 322 4DCR15 protein - human g ö ò g q g g ð g ò ò ò à ద ઠે

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on:

May 17, 2004, 16:16:00; Search time 27 Seconds (without alignments) 692.340 Million cell updates/sec

US-09-367-052-2 1867 1 MEPISVSIYTSDNYSEEVGS........KRGGHSSVSTESESSSFHSS 359 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

141681 segs, 52070155 residues Searched:

141681 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

SwissProt\_42:\* Database : Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description		COSES TATES DON'S	napio a	174	P30991 homo sapien	4.	O62747 cercocebus	_	bos t	s ovis		1 mus 1	P51679 homo sapien	_	σ.	4,		₹#	5 home	_	9 mac	goril	homo sap	เพนธก	homo	pomod 3	P49238 homo sapien	ย เมนาย	gnw (	mus /	P55919 gorilla gor	pan (	P35343 mus musculu
SUMMARIES	£		CCR4 MOUSE			CCR4 HUMAN	CCR4 MACMU	CCR4_CERTO			CCR4 SHEEP	CCR3_HUMAN	CCR3 MOUSE	CKR4 HUMAN	IL8B_RAT	IL8A_RABIT		IL8B_CANFA	IL8B RABIT	IL8B HUMAN	IL8B_PANTR	IL8B MACMU	IL8B GORGO	CKR7_HUMAN		CKR6 HUMAN	CKR9 HUMAN	C3X1_HUMAN	CKR6 MOUSE	CKR4 MOUSE	CKD6 MOUSE		IL8A_PANTR	IL8B_MOUSE
	DB		٦,	-	·	Н	Н	٦	н	Н	Н	н	٦	н	Н	Н	Н	ч	ч	Н	~	-	Н	-	-	-		-1	-	н	-4	-	н	Н
	Length	, , ,	W 50	r u	i in	ıΩ	10	ın	in	in	a,	S	S.	۱n	10	ın	~	tO.	ın	œ	មា	ம	S	~	ശ	~	ഗ	ഥ	o	o	$\sim$	ഗ	ഹ	ഥ
	& Query Match		100.0	•	90.06		89.8			87.4	47.4	٠.	31.1	30.6	٠	29.5			•	•		•			•	•	٠	•	•	•	•	28.1	•	•
	Score	1 1	89.	. 484		678.	676.	668.	54	53	'n	28		70.	S	51.	50.		44.	44.	42.	41.	4	•	3	m	m	m	3	m	N	25.	٠	23.
	Result No.		н с	4 (*	77	ເດ	9	7	60	σ	10	11	12	13	14		16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33

P12302 homo sapien P25024 homo sapien O04683 mus musculu Q28003 bos taurus P56484 mus musculu O0574 homo sapien Q9tv16 pan troglod P34997 rattus norv O09027 rattus norv O18983 cercopithec O19024 macaca neme P35411 rattus norv	
CCRS HUMAN LLBA_HUMAN CCRS_MOUSE CCRS_HUMAN CCRS_HUMAN CCRS_RAT CCRS_RAT CCRS_CRAS CCRS_CRAS CCRS_CRAS CCRS_CRAS CCRS_CRAS CCRS_MACUS CSRS_MAT CCRS_CRAS CCRS_MACUS CSRS_MAT CCRS_CRAS CCRS_MACUS CSRS_MAT CCRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_MACUS CSRS_M	
нанананана	
U	
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
522.5 520.5 511.5 511.5 511.5 510 510 508.5 508.5 508.5 508.5	
# # # # # # # # # # # # # # # # # # #	

## ALIGNMENTS

us-09-367-052-2.rsp

```
SEQUENCE FROM N.A. (ISOFORM CXCR4-B).

STRAIN=FVBS/N; TISSTE=Ammmary gland;

A Strausberg R.L., Fedingold E.A., Grouse L.H., Derge J.G.,

A Klausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.,

Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Depkins R.F., Jordan H., Moorer A.A., Rubin G.M., Hong L.,

B Datchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

B Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

A Brownstein M.J., Usdin T.B., TOSHiyuki S., Carninci P., Prange C.,

Raha S.A., McGwan P.D., McKernan K.J., Abramson R.D., Mullahy S.J.,

B Bosak S.A., McHey K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

A Nilalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

A Nilalon D.K., Muzny D.M., Madan A., Rodrigues S., Sanchez A.,

Mitting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

B Bakesley R.W., Touchman J.W., Green B.D., Dickson M.C.,

B Butterfield Y.S.N., Krzywinski M.I., Skalsku U., Smailus D.E.,

Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;

Human and mouse cDNA sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=98295994; PubMed=9634237;
Tachibana K., Hirota S., Iizasa H., Yoshida H., Kawabata K.,
Kataoka Y., Kitamura Y., Matsushima K., Yoshida N., Nishikawa S.-I.,
Kishimoto T., Nagasawa T.;
"The chemokine receptor CXCR4 is essential for vascularization of the
gastrointestinal tract.";
Nature 393:591-594(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALTERNATIVE SPLICING.
MEDLINE=99095114; PubMed=9879064;
Frodl R., Gierschik P., Moepps B.;
Geomic organization and expression of the CXCR4 gene in mouse and man: absence of a splice variant corresponding to mouse CXCR4-B in human tissues.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=98295995; PubMed=9634238;
Zou Y.-R., Kottmann A.H., Kuroda M., Taniuchi I., Littman D.R.;
Throttion of the chemokine receptor CXCR4 in haematopoiesis and in cerebellar development.";
Nature 393:595-599(1998).
J. Immunol. 158:3561-3504(127),.
[6]
SEQUENCE FROM N.A. (ISOFORM CXCR4-B).
SEQUENCE FROM N.A. (ISOFORM CXCR4-B).
STRAIN=C57BL/6; TISSUB=Thymus;
Suzuki G., Nakata TY., Uzawa A., Shirasawa T., Saito T., Mita Submitted (PEB-1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          J. Recept. Signal Transduct. Res. 18:321-344(1998).
[9]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEVELOPMENTAL STAGE.
```

```
Vente-ARRITUR PRODUCTS:

Name-CXCR4-H; SynonymasIESRT-H;

Name-CXCR4-H; SynonymasIESRT-H;

Name-CXCR4-H; SynonymasIESRT-H;

Name-CXCR4-H; SynonymasIESRT-H;

Isold-P00658-2; Sequence=0189101891;

Isold-P00658-2; Sequence=0189101891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

Isold-P00658-2; Sequence=0289 P01891;

In the ventral mattel expected in the developing the entrellian of the developing cereballum;

In the ventral mattel expected in the developing the entrellian of the developing cereballum;

In the ventral mattel expected in the developing cereballum;

Isold-P0068-2; Sequence=0289-2; Sequence=0289-2; Sequence=0289-2; Sequence=0289-2; Sequence=0289-2; Sequence=0289-2; Sequence=0289-2; Sequence=0289-2; Sequence=0289-2; Sequence=0289-2; Sequence=02
```

This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its mes by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).

EMBL; U59760; AAB07725.1; -EMBL; U6580; AAC2953.1; -EMBL; D87747; BAA73451.1; -EMBL; Z80111; CAA02201.1; -EMBL; Z80112; CAA02202.1; -EMBL; X99581; CAA67894.1; -EMBL; AB000803; BAA19187.1; -EMBL; AB000803; BAA19187.1; -EMBL; BC31665; AA43165.1; -MCD; MC1:109563; CXCr4.
GO; GO:0007420; P:regulation of cell migration; IMP.
GO; GO:0007420; P:regulation of cell migration; IMP.
InterPro; IPRO0275; GPCR\_Rhodpsn.
Pfam; PF0001; 7Tm.1; 1.
PRINTS; PR00237; GPCRRHODOPSN.

ö 120 180 180 240 241 KRKALKTTVILILAFPACWLPYYVGISIDSFILLGVIKQGCDFBSIVHKWISITBALAFF 300 181 ÓGDISÓGDDRÝICDRLÝPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQ 240 KRKALKTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFF 300 9 HCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 HCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 1 MEPISVSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGL 61 VILVMGYQKKLRSMTDKYRLHLSVADLJEVITLPFWAVDAWADWYFGKFLCKAVHIIYTV NLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVS QGDISQGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQ 1 MEPISVSIYISDNYSEEVGSGDYDSNKEPÇFRDENVHFNRIFLPTIYFIIFLTGIVGNGL 61 VILVMGYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTV Gaps ö Length 359; Indels 100.0%; Score 1867; DB 1; ilarity 100.0%; Pred. No. 2.2e-115; Conservative 0; Mismatches 0; Query Match Best Local Similarity Matches 359; Conserv 121 181 241 301 301 g È g à g ઠે d 셤 ठे

01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
115-MAR-2004 (Rel. 43, Last annotation update)
12-MAR-2004 (Rel. 43, Last annotation update)
6-X-C chemokine receptor type 4 (CXC-84) (CXCR-4) (Stromal cell-derived factor 1 receptor) (SDF-1 receptor) (Fusin) (Leukocyte-derived seven transmembrane domain receptor) (LESTR).

CXCR4 OR CMKAR4.

This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the ENBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).

125 185 245 236 KTTVILILAFFACWLPYYVGISIDSFILLEVIKQGCEFESVVKKWISITEALAFFHCCLN 295 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305 9 126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 61 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADMYFGKFLCKAVHIIYTVNLYSS 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 176 QGBGRYICDRLYPDSLWMVVEQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 5; Gaps EMBL; U90610; AABS0408.1; -.
InterPro; IPR00276; GPCR\_Rhodpsn.
PROMOSO17; Trum 1; 1.
PRINTS; PR00237; GPCRFHOOPSN.
PROSITE; PS0237; G\_PROTEIN\_RECEP\_F1 1; 1.
PROSITE; PS50262; G\_PROTEIN\_RECEP\_F1 2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Sulfation.
DOMAIN. PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS (POTENTIAL) 93.4%; Score 1744.5; DB 1; Length 349; 95.5%; Pred. No. 2.2e-107; ive 4; Mismatches 7; Indels 5; BY SIMILARITY.
SULFATION (POTENTIAL).
SULFATION (POTENTIAL).
N-LINKED (GLCNAC. . .) (POT
N; 7E0789A605C60C09 CRC64; 1 (POTENTIAL). CYTOPLASMIC (POTENTIAL). 2 (POTENTIAL). EXTRACELLULAR (POTENTIAL) 4 (POTENTIAL). EXTRACELLULAR (POTENTIAL) 6 (POTENTIAL).
EXTRACELUMAR (POTENTIAL)
7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL). (POTENTIAL) 5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL). 3 (POTENTIAL) CYTOPLASMIC (1 349 AA; 39334 MW; Query Match Best Local Similarity 95.5 Matches 338; Conservative 37 61 77 77 108 1130 1152 1152 1193 246 306 TRANSMEM DOMAIN TRANSMEM DISULFID MOD\_RES MOD\_RES CARBOHYD DOMAIN TRANSMEM DOMAIN TRANSMEM DOMAIN DOMAIN TRANSMEM DOMAIN 99 **TRANSMEM** SEQUENCE **PRANSMEM** DOMAIN ਨੇ g g ò 셤 ठे 셤 à g à 셤 à

ï

STANDARD; CCR4 PAPAN P56491; 15-JUL-1998 ( RESULT 3 CCR4\_PAPAN

15-UUL-1998 (Rel. 36, Created)
15-UUL-1998 (Rel. 36, Last sequence update)
16-COT-2010 (Rel. 40, Last annotation update)
C-X-C chemokine receptor type 4 (CXCR-4) (CXCR-4)
(Stromal cell-derived factor 1 receptor)

(SDF-1 receptor)

Papio anubis (Olive baboon).

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Mammalia; Butheria; Primates; Catarrhini; Cercopithecidae;

Cercopithecinae; Papio.

NCBI\_TaxID=9555; OCCOOR SEED THOO

יות עומא דם דסיים די די די

STANDARD;

Rattus norvegicus (Rat)

Bukaryota; Merazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus. NCBL\_TaxID=10116;

SEQUENCE FROM N.A.

STRAIN=Wistar; TISSUS-Spleen;
A Harrison J.K., Salafranca M.N.;
Harrison J.K., Salafranca M.N.;
Andecular cloning of rat CXCR4";
Submitted (MAR-1997) to the EMBL/GenBank/DDBJ databases.

L. FUNCTION: Receptor for the C-x-C chemckine SDF-1. Transduces a signal by increasing the intracellular calcium ions level:

Cardiac ventricular septum formation. Plays also an essential role in vascularization of the gastrointestinal tract, probably by requlating vascular branching and/or remodelling processes in endothelial cells. Involved in cerebellar neuronal layer formation, preventing premature migration of proliferating granule colls from the external granule layer inwards. In the CNS, could mediate hippocampal-neuron survival (By similarity).

C. SUBCELLULAR LOCATION: Integral membrane protein.

C. TINSUE SPECIFICITY: Expressed in neurons and in astrocytes.

C. PTMLARITY: Belongs to family 1 of G-protein coupled receptors.

```
CCR4 MACFA
ID CCR4 MACFA
AC Q28474;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99
                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bloinformatics and the EMBL outstation the European Bloinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           66 GYOKKLRSMIDKYRLHLSVADLLFVIILPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDRIPADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 ISIYTSDNYTEEMGSGDYDSIKEPCFREENAHFNRIFLPTIYSIIFLTGIVGNGLVILVW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KTTVILILAPPACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                   Benton P.A., Timanus D.K., Shearer M.H., Lee D.R., Kennedy R.C.; 
bubitted (NOV-1997) to the SMB1/GenBank/DBD datebases.
-1- FUNCTION: Receptor for the C.X-C chemokine SDF-1. Transduces a signal by increasing the intracellular calcium ions level.
- SUBCELULAR LOCATION: Integral membrane protein.
-1- PTM: Sulfated (By aimilarity).
-1- PTM: Sulfated (By aimilarity).
                                                                                                                                                                                                EMBL; AF031089; AAC63831.1;
InterPro; IPR000276; GPCR_Rhodpsn.
PRIM:S: PR0001; 7; GPCRHODPSN.
PROSITE; PS00237; GPCRHODPSN.
PROSITE; PS00237; GPCRPIN RECEP_FL 1; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Sulfation.
DOMAIN
EMPLOYED
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
                                                                                                                                                                                                                                                                                                                                                                                                                                    7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
SULFATION (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 90.3%; Score 1686.5; DB 1; Length 352; Best Local Similarity 90.7%; Pred. No. 1.3e-103; Matches 321; Conservative 16; Mismatches 12; Indels 5;
                                                                                                                                                                                                                                                                                                                                         3 (POTENTIAL).
CYTOPLASHIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLUTAR (POTENTIAL).
5 (POTENTIAL).
CYTOPLASHIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLUTAR.
                                                                                                                                                                                                                                                                                                1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BY SIMILARITY.
468E542E1851265A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              39751 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             352 AA;
[1]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                               TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ठे
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 ISIYTSDNYTEEMGSGDYDSIKEPCFREENAHFNRIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6 VSIYTSDNYSEEVGSGDYDSNKEPCPRDENVHPNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                 Tatsumi M., Takahashi H.,
Subitsumi M., Takahashi H.,
Submitted (JUL-1996) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: Receptor for the C-X-C chemokine SDF-1. Transduces a signal by increasing the intracellular calcium ions level.
-!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- PTM: Sulfaced (By similarity).
-!- PTM: Sulfaced (By similarity).
                                   15-UTL-1998 (Rel. 36, Created)
15-UTL-1998 (Rel. 36, Last sequence update)
16-CCT-2001 (Rel. 40, Last annotation update)
C-X-C chemokine receptor type 4 (CXC-R4) (CXCR-4) (SDF-1 receptor)
(Stromal cell-derived factor 1 receptor) (Fusin) (LESTR)
                                                                                                                                       Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).

Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia; Butheria, Primates; Catarrhini, Cercopithecidae;
Cercopithecinae; Macaca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 بر
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 90.0%; Pred. No. 3.8e-103;
Matches 319; Conservative 17; Mismatches 13; Indels 5;
Æ
352
STANDARD;
```

```
REPRET TARKET TRAKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER REPRET TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TARKER TA
                                                                                                                                                            245
                                                                                                                                                                                                                                                                                      305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCR4 HUMAN STANDARD;
PRT; 352 AA.
P30991, 060835; P56438; Q9UKN2;
P30991, 060835; P56438; Q9UKN2;
O1-JUL-1993 (Rel. 26, Last sequence update)
O1-JUL-1993 (Rel. 43, Last annotation update)
15-MAR-2004 (Rel. 43, Last annotation update)
C-X-C chemokine receptor type 4 (CXCR-4) (Stromal cell-CX-C chemokine receptor) (SDF-1 receptor) (Fusin) (Leukocyte-derived seven transmembrane domain receptor) (LESTR) (LCR1) (FB22) (NPYRL)
                                                                                                                                                                                                                                                                                                                        VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS
                                                                VILLAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLLTIPDFIFASV-----S
                                                                                                                                                        186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                           * EADDRYICDRFYPNDLWVVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                      KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Cloning of a human seven-transmembrane domain receptor, LESTR, that is highly expressed in leukocytes.";
J. Biol. Chem. 269:232-237(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SPECIES-Human, TISSUE-Lung, MEDLINE-9319629. PubMed=8329116; Herzog H., Hort Y.J., Shine J., Selbie L.A.; Molecular cloning, characterization, and localization of the human homeolog to the reported bovine NPY Y3 receptor: lack of NPY binding bnA octivation. 12:465-471(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SPECIES=Human: TISSUE=Fetal brain;
MEDLINE=94052833; PubMed=8234909;
Jazin E.E., Yoo H., Blomqvist A.G., Yee F., Weng G., Walker M.W.,
Salon J., Larhammar D., Wahlestedt C.R.;
"A proposed bovine neuropeptide Y (NPY) receptor cDNA clone, or its
human homologue, confers neither NPY binding sites nor NPY
responsiveness on transfected cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SPECIES-Human, TISSUE-Fetal spleen;
MEDIJNRS-3315164; PubMed-3325644;
Redersppiel B., Melhado I.G., Duncan A.M., Delaney A.D.,
Schappert K.T., Clark-Lewis I., Jirik F.R.;
Molecular cloning of the cDNA and chromosomal localization of the
gene for a putative seven-transmembrane segment (7-TMS) receptor
isolated from human spleen.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pan troglodytes (Chimpanzee).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                    PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=94103215; PubMed=8276799;
Loetscher M., Geiser T., O'Reilly T., Zwahlen R., Baggiolini M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SPECIES-Human, TISSUE-Monocytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. (ISOFORM 1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [2]
SEQUENCE FROM N.A. (ISOFORM 1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. (ISOFORM 1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Regul. Pept. 47:247-258(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human), and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genomics 16:707-712(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9606, 9598;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (HM89) (CD184 antigen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Moser B.;
                                                                                           124
                                                                                                                                                                                                                         179
                                                                                                                                                                                                                                                                                      246
                                                                                                                                                                                                                                                                                                                                                                                                                    306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALL SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SERVICE SE
                                                                                    셤
                                                                                                                                              ठे
                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          용
```

```
"Genomic organization and functional characterization of the chemokine receptor CXCR4, a major entry co-receptor for human immunodeficiency virus type 1.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Xiao L., Weiss S.H., Qari S.H., Rudolph D., Zhao C., Denny T.N., Hodge T., Lal R.B., "Partial Presistance to infection by RSX4 primary HIV type 1 isolates in an exposed-uninfected individual homozygous for CCR5 32-base pair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Caruz A., Samsom M., Alonso J.M., Alcami J., Baleux F., Virelizier J.L., Parmentier M., Arenzana-Seisdedos F.; "Genomic organization and promoter characterization of human CXCR4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wegner S.A., Ehrenberg P.K., Chang G., Dayhoff D.E., Sleeker A.L.,
Michael N.L.,
[5]
MEDLINE-94092629; PubMed=7505609;
MEDLINE-94092629; PubMed=7505609;
Nomura H., Nielsen B.W., Matsuchima K.;
"Molecular cloning of cDNAs encoding a LD78 receptor and putative leukocyte chemotactic peptide receptors.";
Int. Immunol. 5:1239-1249(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SPECIES=Human, TISTUE=Neutrophils,
MEDLINE=99384048; PubMed=10452968;
MEDLINE=99384048; PubMed=10452968;
MEDLINE=99384048; PubMed=10452968;
MCXCR4-Lo: molecular cloning and functional expression of a novel human CXCR4 splice variant.",
human LXCR4 splice variant.",
J. Immunol. 163:2368-2372(1999).
                                                                                                                                                                                                                                                                                        HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEGUENCE FROM N.A. (ISOFORM 1).
SPECUES-Human, TISSUB-PERTIPARTAL blood lymphocytes;
SPECUES-SHuman, TISSUB-PERTIPARTAL
FINDHINE-99095114; Fubbed-9807064;
Frodl R., Gierechik P., Moeppe B.;
"Genomic organization and expression of the CXCR4 gene in mouse man: absence of a splice variant corresponding to mouse CXCR4-B human tissues.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SECTENCE FROM N.A. (ISOFORM 1).
SPECIES=Human, TISSUE=Lung;
Warren C.N., Aronstam R.S., Sharma S.V.;
"CDNA clones of human proteins involved in signal transduction sequenced by the Guthrie cDNA resource center (www.cdna.org).";
Submitted (FEB-2003) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                        _{\rm ITS}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a seven-
                                                                                                                                                                                                                                                                                        (ISOFORM 1), AND CHARACTERIZATION OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. (ISOFORM 1).
SPECIES-Human; TISSUE-Peripheral blood leukocytes;
MEDLINE-98136183; PubMed=9468539;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Recept. Signal Transduct. Res. 18:321-344(1998)
                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=56217947; PubMed=8629022;
Feng Y., Broder C.C., Kennedy P.E., Berger B.A.;
"HIV-1 entry cofector: functional cDNA cloning of
transmembrane, G protein-coupled receptor.";
Science 272:872-877(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AIDS Res. Hum. Retroviruses 15:1201-1208(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            virus type 1.";
J. Biol. Chem. 273:4754-4760(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. (ISOFORM 1).
SPECIES=Human, TISSUE=Colon,
MEDLINE=22388257; PubMed=12477932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SPECIES=Human;
MEDLINE=99408510; PubMed=10480633;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=98258970; PubMed=9599023;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. (ISOFORM 1). SPECIES=Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. (ISOFORM 2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEBS Lett. 426:271-278(1998).
                                                                                                                                                                                                                                                                                                                              CORECEPTOR FUNCTION.
                                                                                                                                                                                                                                                             [6]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                             SPECIES-Human;
```

Hoxie J.A.;

B

```
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Alausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
HOPKINS R.F., Jordan H., Morce T., Max S.I., Wang J., Hsieh F.,
A biatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M.J., Usdin T.B., Donaldo M.F., Casavant T.L., Scheetz T.E.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., Morwan P.J., McKernan K.J., Malek J.A., Gabbs R.A.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.H.,
Nilalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S.,
Rhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Rhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakesley R.W., Touchman J.W., Gchen B.D., Dickson M.C.,
Butterfield Y.S.N., Krzywinski M.I., Schmutz J., Myers R.M.,
Butterfield X.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
Bennerah A., Schmutz J., Marra M.A.,
Generation and initial analysis of more than 15,000 full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Evidence for cell-surface association between fusin and the CD4-gp120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHARACTERIZATION OF ITS HIV-2 RECEPTOR FUNCTION.
MEDLINE=97083584; PubMed=8929542;
Endres M.J., Clapham P.R., Marsh M., Ahuja M., Turner J.D.,
McKright A., Thomas J.F., Stoebenau-Haggarty B., Choe S., Vance P.J.,
Wells T.N.C., Power C.A., Sutterwala S.S., Doms R.W., Landau N.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bleul C.C., Farzan M., Choe H., Parolin C., Clark-Lewis I.,
Sodroski J., Springer T.A.;
"The lymphocyte chemoattractant SDF-1 is a ligand for LESTR/fusin and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lapham C.K., Ouyang J., Chandrasekhar B., Nguyen N.Y., Dimitrov D.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SPECIES=Human;
MEDLINE=99189752; PubMed=10089882;
Farzan M., Mirzabekov T., Kolchinsky P., Wyatt R., Cayabyab M.,
Gerard N.P., Gerard C., Sodroski J., Choe H.;
"Tyrosine sulfation of the amino terminus of CCR5 facilitates HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDINE=96351078; PubMed=8752281;
Oberlin E., Amara A., Bachelerie F., Bessia C., Virelizier J.-L.,
Aberrana-Seisdedos F., Schwartz O., Heard J.-M., Clark-Lewis I.,
Legler D.F., Loetscher M., Baggiolini M., Moser B.;
"The CXC chemckine SDF-1 is the ligand for LESTR/fusin and prevents
infection by T-cell-line-adapted HIV-1.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oberlin E., Amara A., Bachelerie F., Bessia C., Virelizier J.-L., Arenaran-Seisdedook F., Schwartz O., Heard J.-M., Clark-Lewis I., Legler D.F., Loetscher M., Baggiolini M., Moser B.; Nature 384:288-288(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEGÜENCE FROM N.A.
SPECIES-P.troglodytes;
MEDLINE=98090115; PubMed=9430250;
Pretet J.-L., Zerbib A.C., Girard M., Guillet J.-G., Butor C.;
"Chimpanzee CKR4 and CREs act as coreceptors for HIV type 1.";
AIDS Res. Hum. Retroviruses 13:1583-1587(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=96351077, PubMed=8752280;
Bleul C.C., Farzan M., Choe H., Parolin C., Clark-Lewis I.,
                                                                                                                                                                                                                                                                                                                                                                                                                      U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHARACTERIZATION OF ITS HIV-1 CORECEPTOR FUNCTION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=97002453; PubMed=8849450;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complex in human cell lines.";
Science 274:602-605(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nature 382:829-833(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               infection by T-cell-line
Nature 382:833-835(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entry.";
Cell 96:667-676(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HIV-1 entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Golding H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SULFATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FUNCTION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ERRATUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                blocks
```

1

```
125
                                                                                                                                                                                         123
                                                                                                                                                                                                                            185
                                                                                                                                                                                                                                                             178
                                                                                                                                                                                                                                                                                                   245
                                                                                                                                                                                                                                                                                                                                      238
                                                                                                                                                                                                                                                                                                                                                                         305
                                                                                                                                                                                                                                                                                                                                                                                                            298
                                                                                                                 63
                                                                                                                                                    GYÇKKLIRSMIDKYRLHISVADILEVITLPEWAVDAMADWYFGKFLCKAVHIIYTUNLYSS
                                                                                                                                                                             64 GYQKKLRSMTDKYRLHLSVADLLEVITLPFWAVDAVANWYEGNFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                                                                    124 VLILAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLLIIPDFIFANV----S
                                                                                                                                                                                                                                                                                                                      KTTVILILAFFACWL PYYVGISIDSFILLGVIKQGCDFBSIVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                            239 KTTVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN
                                                                              6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                 + ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                              VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS
                                                                                                                                                                                                                                                                                                   186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=Indian macaque,
MEDLINE=9731934; PubNed=9060623;
MEDLINE=9731934; PubNed=9060623;
Chen Z., Zhou P., Ho D.D., Landau N.R., Marx P.A.;
"Genetically divergent strains of simian immunodeficiency virus use CCR5 as a coreceptor for entry.";
(2R5 as a coreceptor for entry.";
(2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            199 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCR4 MACMU STANDARD; PRT; 352 AA.

CCR4 MACMU 5046428,
15-UDL-1998 (Rel. 36, Last sequence update)
15-UDL-1998 (Rel. 36, Last sequence update)
16-COT-2001 (Rel. 40, Last annotation update)
C-X-C chemokine receptor type 4 (CXC-R4) (CXCR-4) (SDF-1 receptor)
(Stromal cell-derived factor 1 receptor) (Fusin) (LESTR).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Edinger A.L., Amedee A., Miller K., Doranz B.J., Endres M., Sharron M., Samson M., Lu Z.-H., Clements J.E., Murphey-Corb M., Peiper S.C., Parmentier M., Broder C.C., Doms R.W.; "Differential utilization of CRS Paracrophage and T cell tropic simian immunodeficiency virus strains."; Proc. Natl. Acad. Sci. U.S.A. 94:4005-4010(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Cercopithecidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDILINE=9825293; PubMed=9591719; Pretet J.-L., Guillet J.-G., Butor C.; Pretet J.-L., Guillet J.-G., Butor C.; New widespread CXRR4 allele in rhesus macaques does not predict subspecies or clinical evolution...; AlbS Res. Hum. Reiroviruses 14:639-641(1998).
-!- FUNCTION: Receptor for the C-X-C chemokine SDF-1. Transduces signal by increasing the intracellular calcium ions level.
                                            ..
..
         Length 352;
                                            11; Indels
       Score 1678.5; DB 1;
Pred. No. 4.5e-103;
9; Mismatches 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE=97268687; PubMed=9108095;
89.9%; Score
90.1%; Pred
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Macaca mulatta (Rhesus macaque).
       Query Match
Best Local Similarity 90.11
Matches 319; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cercopithecinae; Macaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI TaxID=9544;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=Chinese;
                                                                                                                                                        99
                                                                                                                                                                                                                              126
                                                                                                                                                                                                                                                                                                                                                                           246
                                                                                                                                                                                                                                                                                                                                                                                                                                                   306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 6
CCR4_MACMU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                   임
                                                                                                                                                        8
                                                                                                                                                                                         임
                                                                                                                                                                                                                              8
```

Tue May 18 13:54:41 2004

```
RESULT 7
                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its modified non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ä
                                                                                                                             modutities reg.
or send an email to
send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an email to
nr send an em
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GYOKKLRSMIDKYRLHISVADILIFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLITIPDFIFADVSQGDIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         186 QGDDRYICDRLYPDSLWMVVPQPQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BADDRYICDRFYPNDLWVVVPQPQHIMVGLILPGIDILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       124 VLILAFISLDRYLAIVHATNSQKPRKLLAEKVVYVGVWIPALLLTIPDFIFASV----S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- SUBCELLUTAR LOCATION: Integral membrane protein.
-!- PTM: Sulfated (By similarity).
-!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
SULFATION (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89.8%; Score 1676.5; DB 1; Length 352; 90.1%; Pred. No. 6e-103; live 17; Mismatches 13; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S (POTENTIAL),
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             K -> E (IN REF. 2).
D -> V (IN REF. 2 AND 3).
S -> N (IN REF. 2).
; EC415E4820699G3F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39739 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                         348
352 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Sim
Matches 319;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
MOD RES
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
```

```
RECUENCE FROM N.A.

RADIUS=98321155; PubMed=9656999;

RADIUS=98321155; PubMed=9656999;

RADIUS=98321155; PubMed=9656999;

RECOMMENT OF THE RECORD OF THE CREST CORRECTION BOOTY MANGADERS

RET Naturally infected in west Africa: a comparison of coreceptor usage

RET Naturally infected in west Africa: a comparison of coreceptor usage

RET Naturally infected in west Africa: a comparison of coreceptor usage

RET NATURALITY STATE (1998).

C. I. FUNCTION: Receptor for the C.X-C chemokine SDF-1. Transduces a signal by increasing the intracellular calcium ions level.

C. I. SUBCELLULAR LOCATION: Integral membrane protein.

C. I. SUBCELLULAR LOCATION: Integral membrane protein.

C. I. SUBMILARITY: Belongs to family 1 of G-protein coupled receptors.

C. I. SUBMILARITY: Belongs to family 1 of G-protein coupled receptors.

C. I. SUBMILARITY: Integral membrane protein.

C. I. SUBMILARITY: SOURTHING THE SAME AND ACOLLABORATION CONTROL THE SWISS Institute of Bioinformatics and the EMBL outstation con the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way condities requires a license agreement (See http://www.isb-sib.ch/announce/

C. Send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         66 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6 VSIXTSDNXSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 ISIYTSDNYTEEMGSGDYDSIKEPCFREKNAHFNRIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL, AF0519106; AAC39834.1; ...
InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
PRINTS; PR00237; GPCRHODDPSN.
PROSITE; PS00237; GPROTEIN_RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Sulfation.
G-protein coupled receptor; Transmembrane; Glycoprotein; Sulfation.
                                                                                                                                                                                                                   Cercocebus torquatus atys (Red-crowned mangabey) (Sooty mangabey). Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Cercopithecinee; Cercocebus.
                                                  15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
C-X-C chemokine receptor type 4 (CXC-R4) (CXCR-4) (SDF-1 receptor)
(Stromal cell-derived factor 1 receptor) (Fusin) (LESTR).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 (POTENTIAL).

SITRACELLULAR (POTENTIAL).
S (POTENTIAL).
CYTOPLASNIC (POTENTIAL).
EXPRACELLULAR (POTENTIAL).
7 (POTENTIAL).
7 (POTENTIAL).
7 (POTENTIAL).
8 ULFATION (POTENTIAL).
8 ULFATION (POTENTIAL).
N'LINKED (GLCNAC...) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ů,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89.4%; Score 1668.5; DB 1; Length 352; 89.5%; Pred. No. 2e-102; ive 19; Mismatches 13; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4027432B8032F87E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
        Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BY SIMILARITY
        352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      39648 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 89.5%
Matches 317; Conservative
     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
262
286
306
306
21
11
109
1352 AA;
CCR4 CERTO
062747;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
MOD_RES
CARBOHYD
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EMBL outstation—the European Bioinformatics Institute. There are no restrictions on its mose by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                               305
                                                                                                                                                                                                                                                                                                                                                                                                              298
GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123
                                                                                                                                                       178
                                                                                                                                                                                                                         245
                                                                                                                                                                                                                                                                                                                                                                                VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS
                                                                                                                                   KITVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Shared usage of the chemokine receptor CXCR4 by the feline and human
                                                                                                                                                                                                                         QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE-99399239; PubMed=10470253;
MEDLINE-99399239; Robinson W.F.;

"Feline paripheral blood mononuclear cells express message for both CXC and CC type chemokines.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Arch. Virol. 144:273-285(1999).
-!- FUNCTION: Receptor for the C-X-C chemokine SDF-1. Transduces a signal by increasing the intracellular calcium ions level.
-!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- PTH: Sulfaced (By similarity).
-!- PTH: Sulfaced (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGXRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCR4_FELCA STANDARD; PRT; 353 AA.

56498; 002700; PT9172;
15-JUL-1998 (Rel. 36, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
25-FEB-2003 (Rel. 41, Last annotation update)
C-X-C chemokine receptor type 4 (CXC-R4) (CXC-R4) (CXC-R6)
(Stromal cell-derived factor 1 receptor) (Fusin) (LESTR).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Carnivora, Fissipedia, Felidae, Felis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.

BIDLINE=97404646; PubMed=9261358;
Willett B.J., Picard L., Hosie M.J., Turner J.D., Adema K.,
Clapham P.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
Lerner D.L., Elder J.H.;
Submitted (MAR-1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Willett B.J.;
Submitted (DEC-1996) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immunodeficiency viruses.";
J. Virol. 71:6407-6415(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Felis silvestris catus (Cat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; U63558; AAC48852.1; -. RMBL; U92795; AAB51765.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9685;
                                                                                                                                                                                                                                                                                                                                                      246 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        299
                                                                                                                                                                                                                                                                                       179
                                       64
                                                                                                  126
                                                                                                                                                                                                                            186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8

CORA FEELCA

ION CRESS

AC PS6438

AC PS6438

DT 15-JUL

DT 18-JUL

DT 28-FEB

DE C-X-C

DE (Strom

GN NCBLT

RN MEDLIN

RN MEDLIN

RN MAILLET

RN MAILLET

RN MAILLET

RN MAILLET

RN MAILLET

RN MAILLET

RN MAILLET

RN MAILLET

RN MEDLIN

RN MEDLIN

RN MEDLIN

RN MEDLIN

RN MEDLIN

RN MEDLIN

RN KOVAC

RN KOVAC

RN MEDLIN

RN KOVAC

RN MEDLIN

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

RN KOVAC

                                                                                                                                                    q
                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                               ò
                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
```

REMEL; AJ009816; CAA08839.1; -.

R Interpro: IPPR00276; GPPR Rhodpsn.

Pfam: PF00101; 7tm 1; 1.

PROSTITE; PS00237; GPROMENN.

PROSITE; PS002637; GPROMENN.

R PROSITE; PS002637; GPROMENN.

R PROSITE; PS002637; GPROMENN.

R G-protein coupled receptor; Transmembrane; Glycoprotein; Sulfation.

TRANSMEM 41 (4 I (POTENTIAL).

TRANSMEM 81 100 2 (POTENTIAL).

TRANSMEM 112 133 3 (POTENTIAL).

TRANSMEM 112 133 3 (POTENTIAL).

TRANSMEM 112 133 3 (POTENTIAL).

TRANSMEM 112 133 3 (POTENTIAL).

TRANSMEM 112 133 3 (POTENTIAL).

TRANSMEM 112 133 4 (POTENTIAL).

TRANSMEM 115 134 155 CYTOPLASMIC (POTENTIAL).

TRANSMEM 156 176 4 (POTENTIAL).

TRANSMEM 156 176 4 (POTENTIAL).

TRANSMEM 157 201 EXTRACELLULAR (POTENTIAL).

4 (POTENTIAL). EXTRACELLULAR (POTENTIAL) 5 (POTENTIAL). CYTOPLASMIC (POTENTIAL).

411 655 11112 1112 1112 1113 1114 1126 1134 1134 114 1174 111

TRANSMEM DOMAIN TRANSMEM DOMAIN TRANSMEM CARBOHYD DISULFID

MOD RES DOMAIN

```
180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 IYPSDNYTEDDLGSGDYDSMKEPCFREENAHFNRIFLPTVYSIIFLTGIVGNGLVILVWG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    67 YOKKLRSMIDKYRLHLSVADILLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      66 YQKKLRSMTDKYRLHLSVADLLFVLTLPFWAVDAVANWYFGKFLCKAVHVIYTVNLYSSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     127 LILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      247 TTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 TTVILLLAPFACWLPYYIGISIDSFILLEIIKQGCEFESTVHKWISITEALAPFHCCLNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 IYTSDNYSE-EVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  187 GDDRYICDRLYPDSLWMVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P25930;
01-MAY-1992 (Rel. 22, Created)
01-MAY-1992 (Rel. 22, Last sequence update)
01-MAY-1992 (Rel. 41, Last sequence update)
01-MAY-1993 (Rel. 41, Last annotation update)
02-FEB-2003 (Rel. 41, Last annotation update)
0-X-C chemokine receptor type 4 (CXC-R4) (CXCR-4) (SDF-1 receptor)
0-X-C chemokine receptor 1 receptor) (Fusin) (Leukocyte-derived (Stromal cell-derived factor 1 receptor) (LESTR) (LCR1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      307 ILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bos taurus (Bovine).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
SULPATION (POTENTIAL).
N-LINKED (GLUNAC. . .) (POTENTIAL).
BY SIMILARITY.
C -> H (IN REF. 3).
C -> E (IN REF. 3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301 ILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTBSBSSSFHSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 353;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       x SIMILARITY.
-> H (IN REF. 3).
-> E (IN REF. 3).
EAZBD46068A6C05B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      88.0%; Score 1643; DB 1;
89.0%; Pred. No. 9.4e-101;
iive 18; Mismatches 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            353 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   39935 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       263
353 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCR4_BOVIN
AC 01-MAY-1992
DT 01-MAY-1992
DT 01-MAY-1992
DT 28-FEB-2003
DE C-X-C Chemck
DE Stromal cell
DE Stromal cell
DE Stromal cell
CXCR4.
OS Bos taurus {
CXCR4.
OS Bukaryota; M
CC Mammalia; Buy
CC Mammalia; Boy
CC Bukaryota; M
CC Mammalia; Boy
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Bukaryota; M
CC Buk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 314;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license also removed. Usage by and for commercial or send an email to license@lib.ch).
                                                                                                                                                                                                                                   MEDLINE=94052833; PubMed=8234909;

A dazin E.E., Yoo H., Blomqvist G., Weng G., Walker M.W.,
A dazin E.E., Yoo H., Blomqvist G. C.R.;
Salon J., Larhammar D., Wahlestedt C.R.;
Thuman homologue, confers neither NPY binding sites nor NPY
responsiveness on transfected cells.";
I. Regul. Pept. 47.247-258(1993).
- !- FUNCTION: Receptor for the C.X-C chemokine SDF-1. Transduces a signal by increasing the intracellular calcium ions level.
- GUBCELLULAR LOCATION: Integral membrane protein.
- ISSUE SPECIFICITY: Brain, heart, kidney, lung and liver.
- ITISSUE SPECIFICITY: Brain, heart, kidney, lung and liver.
- ISIMILARITY: Belongs to family 1 of G-protein coupled receptors.
- I- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
- I- CAUTION: Was originally (Ref.1) thought to be a receptor for neuropeptide Y type 3 (NPY3-R).
                                                              MEDLINE=92100053; PubMed=1661837; RimLand J., Xin W., Sweetnam P., Saijoh K., Nestler E.J., Duman R.S.; Sequence and expression of a neuropeptide Y receptor cDNA."; "Nol. Pharmacol. 40.869-875(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; M86799; -; NOT ANNOTATED CDS.

BMSL; AR399642; AAK94452.1; -.

PIL; S28787; S28787; CPCR. Rhodpsn.

PEAM; PF00001; 7tm 1; 1.

PROMITS; PR000237; GPCRRHODOPSN.

PROSITE; PS00262; GPROTEIN RECEP F1 1; 1.

PROSITE; PS50262; GPROTEIN RECEP_F12; 1.

G-protein coupled receptor; Transmembrane; Glycoprotein; Sulfation. TRANSMEM 41 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (FOLENIAL).
STOPELSENIC (POTENTIAL).
SULFATION (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
                                                                                                                                                                        Werling D.; "Role of chemokines in respiratory syncytial virus infection."; Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              42FFE5BC7545505E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            39938 MW;
                                                   ISSUE=Locus coeruleus;
                                                                                                                                                       SEQUENCE FROM N.A.
NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
TRANSMEM
                                   EQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
```

Query Match 87.4%; Score 1631; DB 1; Length 353;
Best Local Similarity 86.8%; Pred. No. 5.7e-100;
Matches 308; Conservative 26; Mismatches 15; Indels 6; Gaps 2;

6 VSIYTSDNYSE-EVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILV 64

	KSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFCKFLCKAVHIIYTVNLYS 124 	SLDRYLAIVHATNSQRPRKLLAEXAVYVGVWIPALLLTIPDFIFADVSQSDI 184	CDRLYPDSLWMVVPQPQHIMVGLLLPGIVILSCYCIIISKLSHSKGHQKRKA 244	LKTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCL 304	NPILYAFLGAKEKSSAQHALNSWSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 	RA SHEEP  CORFA SHEEP  CORFA SHEEP  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COSF53;  COS	Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; Ovis.	% K.L., Keisler D.H.; ovine X3 receptor ovine X3 cDNA and expression of the X3 receptor typothalamus and pituitary."; sci. 21:1890-1890(1995). icr for the C-X- chemokine SDF-1. Transduces a sasing the intracellular calcium ions level.	ed receptors. eptor for	ry is copyright. It is produced through a collaboration Institute of Bioinformatics and the EMBL outstation ormatics Institute. There are no restrictions on its institutions as long as its content is in no way tatement is not removed. Usage by and for commercial license agreement (See http://www.isb-sib.ch/announce/license@isb-sib.ch).	47.1; GPCR_Rhodpsn. ; 1. PROTEIN RECEP_F1_1; 1. PROTEIN RECEP_F1_2; 1. PROTEIN RECEP_F1_2; 1. Gligation
--	---------------------------------------------------------------	----------------------------------------------------------	----------------------------------------------------------	------------------------------------------------------------------	-----------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------

```
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57 KKLRSMTDKYRLHLSVADLLFVLTLPFWAVDAVANWYFGQFLCKAVHVIYTVNLYSSVLI 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQGD 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 YTED----DLGSGDYDSMKEPCFREENAHPNRIFLPTVYSIIFLTGIVGNGLVILVMGYQ 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9 YTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGYQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVLI
                                                                                                                                                                                                                                                                                                                                                                                                                                  9; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Loetscher M., Gerber B., Loetscher P., Jones S.A., Piali L., Clark-Lewis I., Baggiolini M., Moser B.; Chark-Lewis I., Baggiolini M., Moser B.; Charmoxine receptor specific for IP10 and mig: structure, function, and expression in activated T-lymphocytes."; J. Exp. Med. 184:963-969(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUB=Brain, Lung, and Testis;
MEDLINE=22388257, PubMed=12477932,
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P49682. Ols185, OPP2TA. OPP2TS, 090 AT. P49682. Ols185, OPP2TS, 01-FEB-1996 (Rel. 33, Created) 01-FEB-1997 (Rel. 35, Last sequence update) 15-MAR-2004 (Rel. 44, Last amontation update) C-X.C chemokine receptor type 3 (CXC-R3) (CXCR-12) (CD183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antigen).
CXCR3 OR GFR9.
Homo sapiens (Human).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequenced by the Guthrie cDNA resource center (www.cdna.org).";
Submitted (FEB-2003) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
Warren C.N., Aronstam R.S., Sharma S.V.;
"CDNA clones of human proteins involved in signal transduction
                                                                                                                                                                                                                                                                                                                                                                     47.4%; Score 885.5; DB 1; Length 192; 83.1%; Pred. No. 1.7e-51; cive 14; Mismatches 11; Indels 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gutierrez J., Varona R., Zaballos A., Lind P., Marquez G
Submitted (SEP-1996) to the EMBL/GenBank/DDBJ databases.
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
3 (POTENTIAL).
4 (POTENTIAL).
6 YTOPLASMIC (POTENTIAL).
5 (POTENTIAL).
5 (POTENTIAL).
5 (POTENTIAL).
5 (POTENTIAL).
5 (POTENTIAL).
5 SULFATION (POTENTIAL).
6 SULFATION (POTENTIAL).
                                                                                                                                                                                                                                                                                                                    22178 MW; A8BCFE303C52BD98 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               368 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ERYICDRFYPSDLWLVVFOFO 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DRYICDRLYPDSLWMVVFQFQ 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
TISSUE=Blood;
MEDLINE=97188912; PubMed=9064356;
                                                                                                                                                                                                                                                                                                                                                                                                   sal Similarity 83.1%
167; Conservative
                                                                                                                                                                                                                                                                                                                    192 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
DOMAIN
TEANSMEM
DOMAIN
TEANSMEM
DOMAIN
TEANSMEM
DOMAIN
TEANSMEM
DO SULFID
DO SULFID
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          129
                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 111
CCR3_HOVAL
CCR3_HOVAL
CCR3_HOVAL
CCR3_HOVAL
DT 01-RP
DT 01-RP
DT 01-RP
DE antig
GN CCCR
GNAMMM
CON MAMMM
CON MAMMM
CON MAMMM
CON MAMMM
RAP CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA MARTINA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCRA
RRA CCR
   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

```
An Altechni S. P. Teachers B. Bastow K. B. Schaefer C. P. Bahr N. K. Brancheni S. P. Teachers B. Bastow K. Farmer J. Max S. II, Wang J., Heith F. Dischence R. J. Jordan H., Noore T., Max S. II, Wang J., Heith F. B. Dischence M. Soares B. M. B. Bender S. A. Reland G. M. Soares B. M. B. Bender S. A. Noores B. M. B. Teacher G. M. Soares B. M. B. Bender S. A. Noores B. M. Marcher J. J. Golden J. B. Teacher J. M. G. L. J. Judin J. P. Teacher J. M. G. L. J. Hall W. W. Soares B. J. M. M. M. J. J. M. Y. Golden J. B. M. M. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M. J. M.
```

```
28-FEB-2003 (Rel. 41, Last annotation update)
C-X-C chemokine receptor type 3 (CXC-R3) (CXCR-3).
CXCR3 OR CMKAR3.
   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .28 ILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQG 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             80
 GO; GO:0001155; P:cell adhesion; TAS.

RG; GO:0006928; P:cell mocility; TAS.

GO; GO:0006932; P:cemctaxis; TAS.

GO; GO:0006932; P:cemctaxis; TAS.

GO; GO:000704; P:cyceolic calcium ion concentration elevation; TAS.

RG; GO:0007204; P:cyceolic calcium ion concentration elevation; TAS.

RIGHT PROBLEM CONCENTRATION RECEPTOR IN PERMY PROSTOR PROBLEM CANCENTRATION.

RRINTS; PRO1337; GPCREMODOPSN.

RRINTS; PRO1337; GPCREMODOPSN.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_2; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_2; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_2; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_2; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_2; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; GRANTS RECEP_F1_1; I.

RRINTS; PRO1337; GPROTEIN_RECEP_F1_1; I.

RRINTS; PRO1337; RRINTS RECEP_F1_1; I.

RRINTS; PRO1337; RRINTS R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141 LLACISFDRYLNIVHATQLYRRGPPARVTLTCLAVMGLCLLFALPDFIFLS-----AHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21 ENFSSSYDYGENESDSCCTSPPCPQDFSINFDRAFLPALYSLLFLIGLIGNGAVAAVLLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          68 OKKLRSMIDKYRLHLSVADLLFVIILFFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         188 DDRY---ICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             245 LKTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12 DNYSEEVGSGDYDSN----KEPCPRDENVHPNRIFLPTIYFIIFLTGIVGNGLVILVMGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                305 NPILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSF 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ||:||||:||||:||||:
314 NPLLYAFVGVKFRERMWLL-----LIRLGCPNQRGLQRQPSSSRRDSSW 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BY SIMILARITY.
N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 31.3%; Score 584; DB 1; Length 368; Best Local Similarity 35.2%; Pred. No. 1.5e-31; Matches 124; Conservative 67; Mismatches 139; Indels ::
                                                                                                                                                                                                                                                 1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLUTAR (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLUTAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                          5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /FTId=VAR 016241.
A -> R (IN REF. 2).
F08A3B44B2BBAD04 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R -> Q.
/FTId=VAR_016240.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          75 75 A
368 AA; 40659 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       363
                                                                                                                                                                                                                                                                                                                                        DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VARIANT
         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
```

Ą

367

STANDARD;

CCR3 MOUSE ID CCR3 MOUSE AC 0884I0; DT 16-OCT-2001 (

RESULT 12

(Rel. 40, Created) (Rel. 40, Last sequence update)

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-aib.ch/announce/or send an email to license@isb-aib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RYLAIVHAINSQR--PRKLLAEKAVYVGVWIPALLLIIPDFIFADVSQGDISQGDDRYI- 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        76 DXYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVLILAFISLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17 EVGSGDYD-SNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGYQKKLRSMT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31.1%; Score 581.5; DB 1; Length 367;
35.2%; Pred. No. 2.2e-31;
tive 70; Mismatches 130; Indels 25; Gaps
                                                                                                        Mus musculus (Wouse).

Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.

VCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.

N-LINKED (GLCNAC. . .) (POTENTIAL.)

N-LINKED (GLCNAC. . .) (POTENTIAL.)

029FBB77BE3CD4EA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  R MGD; MGILLOTTO); CXCT3.

R MGD; MGILLOTTO70; CXCT3.

R InterPro; IPR000276; GPCR_Rhodpsn.

P Fam; PR00101; 7tm_1.

R PRINTS; PR01523; GPCRHHODDSN.

R PRINTS; PR01523; GPCRHHODDSN.

R PROSITE; PS00237; GPROTEIN RECEP_F1_1; 1.

R PROSITE; PS00237; GPROTEIN RECEP_F1_2; 1.

M G-protein coupled receptor; Transmembrane; Glycoprotein.

TRANSMEM S1 79 1 (POTENTIAL).

F DOMAIN 80 88 (CYTOPLASMIC (POTENTIAL).

TRANSMEM 89 109 2 (POTENTIAL).

TRANSMEM 125 146 3 (POTENTIAL).

TRANSMEM 125 146 3 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; AF045146; AAC40163.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41016 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 35.2%
Matches 122; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1125
11447
1169
2212
2212
2233
321
123
123
32
32
34
36
37
34
34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
```

```
199 ATHCQYNFP-QVGRTALRVLQLVAGFLLPLLVMAYCYAHILAVLLVSRGQRRFRAMRLVV 257
                                                                                                               258 VVVAARFAVCWTPYHLVVLVDILMDVGVLARNCGRKSHVDVAKSVTSGMGYMHCCLNPLLY 317
---CDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKTTV 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Campbell J.J., Haraldsen G., Pan J., Rottman J., Qin S., Ponath P., Andrew D.P., Warnke R., Ruffing N., Kassam N., Wu L., Butcher E.C.; "The chemokine receptor CCR4 in vascular recognition by cutaneous but not intestinal memory T cells.",

Mature 400:776-780(1999).
                                                                                     250 ILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Spleen;
MEDLINE=95370289; PubMed=7642634;
Power C.A., Meyer A., Nemeth K., Bacon K.B., Hoogewerf A.J.,
Proudfoot A.E.I., Wells T.N.C.;
"Molecular cloning and functional expression of a novel CC chemokine receptor CDNA from a human basophilic cell line.";
J. Biol. Chem. 270:19495-19500(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A., AND VARIANTS VAL-130 AND SER-178.
MEDLINE-21040311; PubMed=11196669;
Acto H., Tsuchiya N., Izumi S., Miyamasu M., Nakajima T., Kawasaki ]
Hirai K., Tokunaga K.;
"New variations of human CC-chemokine receptors CCR3 and CCR4.";
                                                                                                                                                                                                                                                                                                                              CKR4_HUMAN STANDARD; PRT; 360 AA.

951679; Q9ULX6; Q9ULX7;
01-0CT-1996 (Rel. 34, Last sequence update)
01-0CT-1996 (Rel. 34, Last sequence update)
C-C chemokine receptor type 4 (C-C CKR-4) (CCR-4) (CCR4)
(KS-5).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=98104168; PubMed=9430724; man T., Chantry D., Raport C.J., Wood C.L., Nishimura M., Godiska Yos'le O., Gray P.M.; "Ma.'rophage-derived chemokine is a functional ligand for the CC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FUNCTION.
MEDLINE-97333486; PubMed=9169480;
MEDLINE-97333486; PubMed=9169480;
MIDAI T., Baba M., Nishimura M., Kakizaki M., Takagi S., Yoshie O.;
"The T cell-directed CC chemokine TARC is a highly specific biological ligand for CC chemokine receptor 4.";
J. Biol. Chem. 272:15036-15042(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (Human).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kopatz S.A., Aronstam R.S., Sharma S.V.; "cDNA clones of human proteins involved in signal transduction sequenced by the Guthrie cDNA resource center (www.cdna.org)."; Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                          310 AFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSF 356
                                                                                                                                                                                                                    318 AFVGVKFREKMWMLFTRLGRSD-----QRGPQRQPSSSRRESSW 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mokine receptor 4.";
Biol. Chem. 273:1764-1768(1998);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=99394604; PubMed=10466728;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genes Immun. 1:97-104(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCR4 OR CMKBR4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FUNCTION
                                                                                                                                                                                                                                                                                    RESULT 13

CRR4_HUMAN

ID CRR4_HUMAN

ID CRR4_HUMAN

DT 01-OCT-10

OC 01-OCT-10

OC BUMAN 91

OC BUMAN 91

OC BUMAN 91

OC BUMAN 91

OC BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO BUMAN 11

CO
                                   g
                                                                      ठ
                                                                                                                        g
                                                                                                                                                                          à
                                                                                                                                                                                                           엄
```

```
MEDLINE-2019238; PubMed=1075427;

RM MEDLINE-2019238; PubMed=1075427;

RM Thuran NK cells express CC chemokine receptors 4 and 8 and respond to remokine, and 1-309.";

Thymus and activation-receptor for the C-c type chemokines and activation-receptor for the C-c type chemokines and 1-309.";

L. Immunol. 164:4048-4054(2000)

TRAC/SCYA17 and MDC/SCYA22. The activate a phosphatidylinositol-calcium second messenger system. Can function as a chemoatrractant madiated by G(i) proteins which activate a phosphatidylinositol-calcium second messenger system. Can function as a chemoatrractant calcium second messenger system. Can function as a chemoatrractant calcium second messenger system. Can function as a chemoatrractant calcium second messenger system. Can function as a chemoatrractant calcium second messenger system. Can function as a chemoatrractant calcium second messenger system. Can function as a chemoatrractant calcium second messenger system. Calciumes in the CNS, could mediate hippocampal-neuron survival.

SUBCELLUIAR LOCATION: Integral membrane protein.

TISSUE SPECIFICITY: Predominantly accepted in the thymus, in peripheral blood Leukocytes, including T cells, mostly calciumed and in monocytes. Detected also in macrophages, IL-2-activated and in monocytes. Detected also in macrophages, IL-2-activated and in monocytes. Detected also in macrophages, IL-2-activated in brain microvascular and coronary artery endothelial cells.

PHOSPHORYLATION ON YET UNDEFINES ERLYTHR RESIDUES, MOST PROBABLY BY BETA-ADRENGERGIC RECEPTOR IN 10 f G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its most by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; X85740; CAA59743.1; -

EMBL; AB023889; BAA86965.1; -

EMBL; AB023889; BAA86966.1; -

EMBL; AB023891; BAA86966.1; -

EMBL; AB023891; BAA86966.1; -

EMBL; AB023891; BAA86968.1; -

EMBL; AB023891; BAA86968.1; -

EMBL; AB023892; BAA86968.1; -

EMBL; AB023892; BAA86968.1; -

EMBL; AS7160; A57160.

Genew; HGMC1.605; CCR4.

MIM; 604836; --

GO; GO:0005887; C:integral to plasma membrane; TAS.

GO; GO:0005895; P:chemckine receptor activity; TAS.

GO; GO:0005935; P:chemckaxi8; TAS.

GO; GO:0005935; P:chemckaxi8; TAS.

GO; GO:0005935; P:inflammatory response; TAS.

GO; GO:0005949; P:inflammatory response; TAS.

FROM: PRO0001; 7tm 1; 1.

PRINTS; PRO0237; GPCR_Rhodpsn.

PROSITE; PS00237; GPCR_Rhodpsn.

PROSITE; PS00237; GPCR_EMBLECEP_F11; 1.

PROSITE; PS00237; GPCRENIN_RECEP_F12; 1.

PROSITE; DS00262; GPROTEIN_RECEP_F12; 1.

PARAPARANAL COUPLE ACCEPTOR: Transmembrane; Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (POTENTIAL). CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
FUNCTION, TISSUE SPECIFICITY, AND PHOSPHORYLATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL)

        Phosphorylation, Donain
        Polymorphism.

        1
        39
        EXTR

        TRANSNEM
        40
        67
        1 (1)

        DOMAIN
        68
        77
        CYTC

        TRANSMEM
        78
        98
        2 (1)

        DOMAIN
        99
        111
        EXTR

        TRANSMEM
        112
        133
        3 (1)

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
TRANSMEM
DOMAIN
```

Page

ILBB\_RAT STANDARD; PRT; 359 AA.
P35407;
01-UTN-1994 (Rel. 29, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
High affinity interleukin-8 receptor B (IL-8R B) (CXCR-2) (GRO/MGSA SEQUENCE FROM N.A. NCBI\_TaxID=10116; receptor). ILBRB OR CXCR2. IL8B\_RAT

RESULT 14

Rattus norvegicus (Rat). Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus. SEQUENCE FROM N.A. STRAIN=Wistar; TISSUE=Liver; Konishi K., Shibata F., Watanabe K., Tsurufuji S., Nakagawa H., ij STRAIN=Sprague-Dawley, TISSUE=Lung, MEDINE=9736189; PubMed=9218648; Gobl A.E., Huang M.E., Mang S., Ehou Y., Oeberg K.; "Molecular cloning and characterization of a cDNA encoding the STRAIN-Wistar; TISSUE-Lung, and Spleen; MEDLINE-97115810; PubMed-8955112; Dunstan C.-A.N., Salafranca M.N., Adhikari S., Xia Y., Feng Submitted (JUL-1995) to the EMBL/GenBank/DDBJ databases. interleukin-8 receptor."; Biochim. Biophys. Acta 1326:171-177(1997) SEQUENCE FROM N.A. Pujioka M.; HERE REPRESENTATION OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PRO

This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the BMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way enditied and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch). interleukin-8 receptors.";
J. Biol. Chem. 271:32770-32776(1996).

J. Biol. Chem. 271:32770-32776(1996).

Incurron. Receptor to interleukin-8, which is a powerful neutrophils chemotactic factor. Binding of IL-8 to the receptor causes activation of neutrophils. This response is mediated via a G-protein that activate a phosphatidylinositol-calcium second messenger system. This receptor binds to IL-8 with a high affinity and to GRO/MGSA and NAP-2 also with a high affinity.

I. SUBCELUIAR LOCATION: Integral membrane protein.

SIMILARITY: Belongs to family 1 of G-protein coupled receptors. N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
BY SIMILARITY.
EF547326A074ABDD CRC64; Print, Prococol, 7tm 1, 1.
PRINTS; PROCO27; GFCRAHOOOPSN.
PROSITE; PSCO267; G PROTEIN RECEP F1 1; 1.
PROSITE; PSCO362; G PROTEIN RECEP F1 2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; EXTRACELLULAR (POTENTIAL). (VTOPLASITAL). 2 (POTENTIAL). 2 (POTENTIAL). EXTRACELLULAR (POTENTIAL). 5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL). 3 (POTENTIAL). CYTOPLASMIC (POTENTIAL). 4 (POTENTIAL). EXTRACELLULAR (POTENTIAL) 7 (POTENTIAL). CYTOPLASMIC (POTENTIAL) EMBL; D63584; braces EMBL; U70988; ARC52961.1; -InterPro; IPR000276; GPCR\_Rhodpsn. 40532 MW; EMBL; X77797; CAA54824.1; -. EMBL; D63584; BAA09797.1; -. Chemotaxis. DOMAIN TRANSMEM DOMAIN TRANSMEM DOMAIN TRANSMEM DOMAIN TRANSMEM DOMAIN CARBOHYD DISULFID SEQUENCE DOMAIN TRANSMEM DOMAIN DOMAIN TRANSMEM CARBOHYD FRANSMEM CARBOHYD 

178 BITFYSSVILLACISMDRYLAIVHAISTILIQKRHLV-KFVCITWWFLSLVLSIPIL-- 182 9 2 7 DNFSLEDFFSGDIDSYNYSSDPPFTLSDAAPC-PSANLDINKYAVVVIXVLVTLLSLVGN GLVILVMGYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIY 119 TVNLYSSVLILAFISLDRYLAIVHATNSQRPRKLLABKAVYVGVWIPALLLTIPDFIFAD ---SNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGN 179 VSQGDISQGDDRYICDRLYPD----SLWMVVFQFQHIMVGLILPGIVILSCYCIIISKL 12 DNYS-EEVGSGDYD-59 g g ò ò ઠ

셤

Harrison J.K.; I two rat genes orthologous to the human "Identification of two rat genes

10;

48; Gaps

DB 1; Length 359;

30.1%; Score 562; DB 1; Length 35: 35.0%; Pred. No. 4e-30; ive 67; Mismatches 126; Indels

Best Local Similarity 35.0 Matches 130; Conservative

Query Match

g 8 셤 ઠે g ò a ò g à ò This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bicinformatics and the EMBL outstation the Buropean Bicinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch). PEQUENCE FROM N.A.

RY TESSUB-Antrophils by Med=1737938;

RX TESSUB-Antrophils by Howed=1737938;

RX TESSUB-Antrophils by Howed=1737938;

RA Lee J., Kuang W.-J., Rice G.C., Wood W.I.;

RA Lee J., Kuang W.-J., Rice G.C., Wood W.I.;

RY "Characterization of complementary DNA clones encoding the rabbit RT "Characterization of complementary DNA clones encoding the rabbit RT "I.-B receptor.";

R. J. Immunol. 14811261-1264(1992).

- I. FUNCTION: Receptor to interleukin-8, which is a powerful neuses activation of neutrophils. This response is mediated via a G-protein that activate a phosphatidylinositol-calcium second G-protein that activate a phosphatidylinositol-calcium second CC messenger system.

CC SUBCELLULAR LOCATION: Integral membrane protein.

CC -I TISSUB SPECIFICITY: Neutrophils.

CC -I TISSUB SPECIFICITY: Neutrophils.

CC -I TISSUB SPECIFICITY: Neutrophils.

CC -I CAUTION: Was originally (Ref. 2) thought to be the receptor for finet-Leu-Phe (N-formyl peptide receptor).

CC -I CAUTION: Was originally (Ref. 2) thought to be the receptor for finet-Leu-Phe (N-formyl peptide receptor). FKAHMGQKHRAMRVIFAVVLVFLLCWLPYNIVLFTDTLMRTKLIKETCERQNEINKALEA 297 TEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSK------GKRGGH 344 SEQUENCE FROM N.A.
STRAIN=Albino; TISSUE-Neutrophils;
MEDLINE=91056034; PubMed=170779;
Thomas X.M., Pyun H.Y., Navarro J.;
"Molecular cloning of the fMet-Leu-Phe receptor from neutrophils.";
J. Biol. Chem. 265:20061-20064 (1990). Oryctolagus cuniculus (Rabbit). Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Lagomorpha, Leporidae, Oryctolagus. . . MEDLINE=91378994; PubMed=1898400;
Beckmann M.P., Munger W.E., Kozlosky C., Vanden Bos T., Price Lyman S., Gerard N.P., Gerard C., Cerretti D.P.;
"Molecular characterization of the interleukin-8 receptor.";
Blochem. Biophys. Res. Commun. 179:784-789(1991). 01-FEB-1991 (Rel. 17, Created) 01-MAY-1992 (Rel. 22, Last sequence update) 10-0CT-2003 (Rel. 42, Last annotation update) High affinity interleukin-8 receptor A (IL-8R A) (CXCR-1). ILBRA OR CXCRI. 355 AA PRT; SFVGSSSANTS 356 STANDARD; SSVSTESESSS 355 SEQUENCE FROM N.A. NCBI\_TaxID=9986; RABIT 294 298 345 346 IL8A RP P21109; RESULT 15 IL8A RABIT 

CYTOPLASMIC (FOTENTIAL).
N-LINKED (GLCNAC. . .) (FOTENTIAL)
N-LINKED (GLCNAC. . .) (FOTENTIAL)
BY SIMILARITY.

CARBOHYD CARBOHYD DISULFID

CONFLICT

(POTENTIAL)

TEACHTIAL)

TEACHTIAL)

S (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)

DOMAIN TRANSMEM DOMAIN TRANSMEM

DOMAIN TRANSMEM DOMAIN TRANSMEM DOMAIN

G\_PROTEIN RECEP\_F1\_1; 1. G\_PROTEIN RECEP\_F1\_2; 1. receptor; Transmembrane; Glycoprotein;

PROSITE, PS00237; (PROSITE; PS50262; (G-protein coupled

DS1.7-7C0-/0C-K0-SI

#007 T#'#C'CT OT

דמת שמא

ò g ò ద

G-protein co Chemotaxis.

DOMAIN TRANSMEM DOMAIN TRANSMEM DOMAIN TRANSMEM

EXTRACELLULAR (POTENTIAL).

1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).

TIAL). LULAR (POTENTIAL)

2 (POTENTIAL). EXTRACELLULAR (13) (POTENTIAL).

```
131
                                                                                                                                                                                                                                                                                                                                135
                                                                                                                                                                                                                                                                                                                                                                     132 ISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQGDDRY 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                   192 IC--DRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKTTV 249
                                                                                                                                                                                                                                                    75
                                                                                                                                                                                                               7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17 DEFANATGMPPVEKDYSPCLVVTQT-LNKYVVVVIYALVFLLSLLGNSLVMLV1LYSRSN
                                                                                                                                                                                                                                                                                           72 RSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVLILAF
                                                                                                                                                                                                                                                                                                                 250 ILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPILY
                                                                                                                                                                                                               DNYSEEVGSGDYDSNKEPCFRDENVHPNRIFLPTIYFIIFLTGIVGNGLVILVMGYQKKL
                                                                                                                                                                            11; Gaps
DLLFALTMPIMAVSKEKGWIFG ->
PAFCPDHAYLGRLQGKRLDFR (IN REF. 2).
R -> C (IN REF. 2).
R -> C (IN REF. 2).
DI -> EL (IN REF. 2).
                                                                                                                                     DB 1; Length 355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        310 AFLGAKFKSSAQHALNSMSRG-SSLKILSKGKRGGHSSVSTESESS 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AFIGONFRNGFLKML--AARGLISKEFLTRHRVTSYTSSSTNVPSN 354
                                                                                                                                     29.5%; Score 551.5; DB 1; Length 35
35.0%; Pred. No. 1.9e-29;
iive 72; Mismatches 142; Indels
                                                                             [ -> EL (IN REF. 2).
EFE49ACB9D1E0F21 CRC64;
                                                                                                  40622 MW;
                                                                                                                                                         Best Local Similarity 35.0 Matches 121; Conservative
                                         146
204
287
355 AA;
                                         CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                   12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  311
                                                                                                                                     Query Match
```

Search completed: May 17, 2004, 22:16:44 Job time : 28 secs

EMBL; M74240; AAA31375.1; -.
EMBL; M58021; AAA31371; -.
EMBL; B28673; AAA31376.1; -.
PIR; A23669; A23669.
PIR; JQ1231; JQ1231.
Interpro; IPR000276; GPCR\_Rhodpsn.
Pfam; PP00001; 7rm 1; 1.
PRINTS; PR00137; GPCRRHODOPSN.

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

May 17, 2004, 21:20:57 ; Search time 128 Seconds (without alignments) 884.930 Million cell updates/sec Run on:

US-09-367-052-2 1867 1 MEPISVSIYTSDNYSEEVGS.......KRGGHSSVSTESESSSFHSS 359 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

1017041 segs, 315518202 residues Searched: Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

SPTREMBL 25:\*

1: SP\_archea:\*

2: Sp\_bacteria:\*

3: Sp\_human:\*

5: Sp\_inverrebrate:\*

6: Sp\_mammal:\*

7: Sp\_mhc:\*

8: P\_organ:\*

9: P\_organ:\*

1: Sp\_organ:\*

2: Sp\_organ:\*

3: Sp\_organ:\*

3: Sp\_organ:\*

3: Sp\_organ:\*

3: Sp\_organ:\*

3: Sp\_organ:\*

3: Sp\_organ:\*

3: Sp\_organ:\*

3: Sp\_organ:\*

3: Sp\_organ:\*

3: Sp\_organ:\*

3: Sp\_organ:\*

3: Sp\_organ:\*

3: Sp\_organ:\*

3: Sp\_organ:\* 

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Description	Q8vd47 rattus norv	Q7ys92 tupaia bela		Q8hzu0 saimiri sci	077488 cercopithed				Q9mzq0 pygathrix n		Q9mzp0 macaca assa	Q9mzg2 pygathrix r		Q9mzp9 nasalis lar	Q9mzp5 presbytis p	Q9mzq3 pygathrix a
ឧ	Q8VD47	Q7YS92	QBHZU1	QBHZUO	077488	6MZM6O	Q9MZP7	Q9MZP8	00ZM60	O9MZMS	O9MZP0	Q9MZQ2	Q9MZP4	64ZM6Ö	O9MZP5	Q9MZQ3
DB	H	φ	9	9	9	9	9	9	φ	φ	9	9	9	9	છ	φ
Length DB		352	352	352	352	347	347	347	347	347	347	347	347	347	347	347
% Query Match	94.2	90.7	90.6	90.5	90.0	89.9	89.9	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
Score	1758.5	1692.5	1691.5	1689.5	1679.5	1678.5	1677.5	1676.5	1676.5	1676.5	1676.5	1676.5	1676.5	1676.5	1676.5	1676.5
Result No.	     	8	m	4	Ŋ	φ	7	æ	σı	10	11	12	13	14	15	16

ä

Q9mzn8 macaca thib	Q9mzn9 macaca arct		callimico					mandril			hylobates		gorill	pongo	유		Q9mzp3 presbytis e	Q9mzp6 presbytis j	5	8	1 mandrill	Q9mzm0 perodicticu	~		74 11	5	oz saguinu	Q9n130 saimiri bol
9MZN8	6NZM60	CNZM60	CMZM60	09MZQ1	90TSQ8	Q9MZM1	ONZM60	O9MZP2	Q9BD85	Q9MZN4	9NZM60	O9MZN5	D9MZN1	Q9MZN2	Q9BXA0	9MZM6O	Q9MZP3	Q9MZP6	Q9MZN3	O9MZM8	Q9MZP1	09MZM0	Q9MZM2	Q9MZM3	Q9MZM4	062973	Q9N1P2	Q9N130
9	9	9	ø	9	9	ø	9	9	9	9	9	ø	9	9	4,	9	9	φ	φ	ø	v	v	ø	v	ø	1	ø	ø
347	347	347	347	347	352	347	347	347	352	347	347	347	347	347	352	347	347	347	347	347	347	347	346	346	346	332	334	334
89.8	φ,	89.8	ο.	89.8	89.8	89.7	7.68	89.6	6	89.5	6	89.5	89.5	φ.	89.5	89.4	89.4	4.68	89.2	89.1	6	88.1	۲.	87.7	87.7	9	86.3	86.0
1676.5	1676.5	676.	1676.5			674.	1674.5	1672.5	672.		670.		1670.5	670.	670.	668.	668.	668,	665.	663.	1661.5	1644.5		1638	1638	_		1606.5
17	18	13	50	21	22	23	24	25	56	27	78	53	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

## ALIGNMENTS

Tue

8 & B &

8 6

8 B 8

g 8 셤

```
64 GYQXKLRSMTDKYRLHLSVADLLFVITLPPWAVDAVANWYFGKFLCKAVHVIYTVNLYSS 123
                                                                                                                                                  01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2003 (TrEMBLrel. 25, Last annotation update)
Chemokine receptor CXCR4.
Callithrix jacofus (Common marmoset).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutsleostomi;
Mammalia; Eutheria; Primates; Platyrrhini; Callitrichidae; Callithrix.
NCBL_TaxID=9483;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4 ISIYTSDNYTEEIGSGDYDSIKEPCFREENAHFNRIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               66 GYQKKIRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KTTVILILAPPACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 VSIYTSDNYSBEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-2174668; PubMed-12186836;

MEDLINE-2174668; PubMed-12186836;

A Laborte J.A., Babrock G.J., Patel T., Sodroski J.;

Laborte J.A., Babrock G.J., Patel T., Sodroski J.;

Englockade of HIVI Infection of New World Monkey Cells Occurs

T Primarily at the Stage of Virus Entry.";

L. J. Exp. Med. 196:431-445(2002).

E. M. A. MAN145281.;

E. M. A. MAN145281.;

R. GO; GO:0010531; C:integral to membrane; IEA.

GO; GO:00018632; F:receptor activity; IEA.

GO; GO:0001864; F:receptor activity; IEA.

GO; GO:000186; F:rhodopsin-like receptor activity; IEA.

GO; GO:000186; F:rhodopsin-like receptor protein signalin...;

R. InterPro; IPR00306; IG-MHC.

P. PRINTS; PR00237; G-PRCHEIN RECEP-F1_1; 1.

PROSITE; PS00237; G-PROTEIN RECEP-F1_2; 1.

PROSITE; PS00290; IG-MHC: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 6; Length 352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match

90.6%; Score 1691.5; DB 6; Length
Best Local Similarity 90.7%; Pred. No. 8.2e-144;
Matches 321; Conservative 18; Mismatches 10; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Receptor.
SEQUENCE 352 AA; 39802 MW; 8018A4500FC887C0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Created)
Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (TrEMBLrel, 23, (TrEMBLrel, 23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q8HZU0
Q8HZU0,
01-MAR-2003 (
01-MAR-2003 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   306
                             299
                                                                                                                                               Q8HZU1
                                                                                                RESULT 3
OGHAZU
11D CORPEZ
OGHAZU
11D CORPEZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGHAZ
OGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT Q8HZU0 ID Q8I AC Q8I DT 011 DT DT DT DT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              298
                                                                                                                                                                                                                                                                                                              245
                                                                                                                                                                                                                                                                                                                                                           235
                                                                                                                                                                                                                                                                                                                                                                                                        305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVMIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                         125
                                                                                                                                                  VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                               175
                                                                                                                                                                                                                                                                                                                                                                                                                                                    295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             66 GYOKKLRSMIDKYRLHLSVADILFVIILPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         63
                                                                            9
                                  65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4 ISIYTSDNYSEELGSGDYDSIKEPCFREENAHFNRIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KITVILILAFFACWLDYYGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                           QGDGRYICDRLYPDSLWMVVFQFQHIMVGLILFGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                                              GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTNLYSS
                                                                                                                                                                                                                                                                                                            QGDDRYICDRLYPDSLWWVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                          KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
                                  VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Yang M., Ben K.; "Cloning and sequence analysis of HIV-1 related genes of CD4, CXCR4 and CCR5 from tree shrew."; EMBL/GenBank/DDBJ databases.
EMBL; AY177628; AAO47588.2; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ö7YS92;
O1-OCT-2003 (TrEMBLrel. 25, Created)
01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Chemokine receptor CXCR4.
Tupaia belangeri chinensis:
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Scandentia; Tupaiidae; Tupaia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
90.7%; Score 1692.5; DB 6; Length 352;
Best Local Similarity 91.2%; Pred. No. 6.7e-144;
Matches 323; Conservative 15; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            352 AA; 39719 MW; 606B07A6D46A7D53 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         [1]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64
                                                                                                                                                                           61
                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                 186
                                                                                                                                                                                                                                                                                                                                                             176
                                                                                                                                                                                                                                                                                                                                                                                                             246
                                                                                                                                                                                                                                                                                                                                                                                                                                                         236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                       ø
                                                                                                                              99
                                                                                                                                                                                                                     126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q7YS92
```

305

ð,

g ò Dp ò g ò g ò 임

125

63

.,

```
GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zheng X.-Z., Zhang Y.-P., Geng Z.-C.; "Molecular Evolution of the Chemokine Receptor CXCR4 Gene Sequences in
                                                                                                                                                                                                                                                                                                                                                                                                                               6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  239 KITVILILAFPACHLPYXIGISIDSFILLBIIKQGCBFBNTVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 ISIYTSDNYTEEMGSGDYDSIKEPCFREENAHFNRIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VLILAFISLDRYLAIVHATNSQRPRKLLABKAVYVGVWIPALLLTIPDFIFADVSQGDIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ateles paniscus (Black spider monkey).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Eutheria, Primates, Platyrrhini, Cebidae, Atelinae, Ateles.
                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Primates.";

builted (JUL-1999) to the EMBL/GenBank/DDBJ databases.

-1 - SUNDITION (GY SIMILARITY)

-1 - SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.

EMBL, ARTY2234, AARP8934-11.

GO, GO:0016021; C.integral to membrane; IEA.

GO, GO:0004872; F.receptor activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS
cDNA sequence of African green monkey CXCR-4 chemokine receptor
                                                                                                                                                                                                                                                                                                                                                                                              2.
                                                                                                                                                                                                                                                                                                                                                            6; Length 352;
                                                                                                                                                                                                                                                                                                                                                        Query Match

90.0%; Score 1679.5; DB 6; Length
Best Local Similarity 90.4%; Pred. No. 9.9e-143;
Matches 320; Conservative 16; Mismatches 13; Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-0CT-2000 (TrEMBLrel. 15, Created)
01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-UIN-2003 (TrEMBLrel. 24, Last annotation update)
CACR4. (SCR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=9510;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9MZM9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6MZM60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              126 VIILAFISLDRYLAIVHATNSQRPRKILLAEKAVYVGVWIPALLITIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAVANYFGKFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      186 QGDDRYICDRLYPDSLWWVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GYQKKIRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6 VSIYTSDNYSEEVGSGDYDSNXEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                            Chemokine receptor CXCR4.
Saimiri sciureus (Common squirrel monkey).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Cebinae; Saimiri.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDINE-22174698; PubMed=12186836;

A LaBonte J.A., Baboock G.J., Patel T., Sodroski J.;

LaBonte J.A., Baboock G.J., Patel T., Sodroski J.;

LaBonte J.A., Baboock G.J.,

EBOOK G.J., Infection of New World Monkey Cells Occurs

T. Primarily at the Stage of Virus Entry.";

J. Exp. Med. 196431-445(2002).

R. Exb., AF455613; AAN14529.1;

G.O. GO:0016021; C:integral to membrane; IEA.

GO; GO:001584; F:receptor activity; IEA.

GO; GO:0001584; F:receptor activity; IEA.

GO; GO:0001584; F:receptor activity; IEA.

GO; GO:0001584; F:receptor activity; IEA.

GO; GO:0001584; F:receptor protein signalin...;

R. InterPro; IPR003076; GPCR. Rhodpsn.

R. InterPro; IPR003006; IG-MHC.

R. PROSITE; PS00237; GPCRRHODPSN.

R. PROSITE; PS00237; GPCRRHODPSN.

R. PROSITE; PS00237; GFORTEIN RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CXCR4 receptor.

Carcopitheous aethiops (Green monkey) (Grivet).

Eukaryota, Metazoa, Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;

Cercopithecinae; Cercopithecus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90.5%; Score 1689.5; DB 6; Length 352;
.larity 90.7%; Pred. No. 1.2e-143;
Conservative 18; Mismatches 10; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            352 AA; 39820 MW; BF1A21FB0C8D4487 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1998 (TrEMBLrel. 08, Created)
01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
           01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S., Inoue-Murayama M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [1]
SEQUENCE FROM N.A.
Murayama Y., Matsunaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
Matches 321; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Receptor.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
```

g

ò 셤  $\delta$ 6 à

à 원 8

077488; 077488

OT7488

IID OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT70488

OT OT7048

RESULT 5

d ઠ 셤

185 178 245

123

65 63 298

8 d ઠે ద  $\delta$ g ઠ a ò 셤 ઠે ద

```
RT SEQUENCE FROM N.A.

A Zheng X.-Z., Zhang Y.-P., Geng Z.-C.;

A Zheng X.-Z., Zhang Y.-P., Geng Z.-C.;

RT Primates ";

Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.

CC -!- SUBLIANTY: BELLOUATION: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY).

CC -!- SIMILARITY: BELLOUAGE TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.

EMBL; AR17215; AAP893351; o. membrane; IEA.

GO; GO:00016021; G:integral to membrane; IEA.

GO; GO:00016021; F:receptor activity; IEA.

GO; GO:000184; F:rhodopsin-like receptor activity; IEA.

GO; GO:000186; P:C-protein coupled receptor protein signalin. .; IEA.

BR GO; GO:000137; GPCR Rhodosn.

R InterPro; IPR00306; Ig_MHC.

DR PRINTS; PR0037; GPCRRHODOPSN.

DR PRINTS; PR0037; GPCRRHODOPSN.

R PROSITE; PS00237; GPCRRHODOPSN.

PROSITE; PS00290; IG_MHC.

DR PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

R PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00290; IG_MHC.

PROSITE; PS00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CXCR4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9572;
                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9MZP8
Q9MZP8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
Q9MZP8
              RUKKYES
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 QKKLRSWIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGKFLCKAVHVIYTVNLYSSSVL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 ILAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLLTIPDFIFANV-----SEA 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DDRYICDRLYPDSLWMVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     248 TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLITIPDFIFADVSQGDISQG 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Secon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . .; IEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BDRYICDRFYPUDLWVVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          236 TVILIIAFFACWLPYYIGISIDSFILLEIIRQGCEFENTVHKWISITEALAFFHCCLNPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 IYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ις
...
GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
GO; GO:0007186; P:G-protein coupled receptor protein signalin.
InterPro; IPR000205; GPCR Rhodopsn.
InterPro; IPR003005; Ig_MFC.
PRINTS; PR00237; GPCRHODOPSN.
PRINTS; PR00237; GPR0TEIN RECEP_FI 1; 1.
PROSITE; PS00237; GPROTEIN RECEP_FI 2; 1.
PROSITE; PS00290; IG_MHC; 1.
G-protein coupled receptor; Receptor; Transmembrane.
NON TER
SEQÜENCE 347 AA; 39317 MW; B84037A04490AIDI CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6; Length 347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89.9%; Score 1678.5; DB 6; Length
90.6%; Pred. No. 1.2e-142;
iive 18; Mismatches 10; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-OCT-2000 (TrEMBLrel. 15, Created)
1-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UTN-2003 (TrEMBLrel. 24, Last annotation update)
Chemokine receptor CXCR4 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 90.68
Matches 319; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=66055;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CXCR4.
Presbytis senex.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9MZP7
```

```
127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      295
                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                    67
                                                                                                                                                                                                                                                                                                                                                                    1 IYTSDNYTEEMGSGDYDSIKEPCFREENAHFNRIFLPTIYSIIFLTGIVGNGLVILVMGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                         68 QKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 QKKLRSMTDKYRLHLSVADLLEVITLEFWAVDAVANWYEGNFLCKAVHVIYTVNLYSSVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            188 DDRYICDRLYPDSLWMVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        176 DDRYICDRFYPNDLWVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             248 TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      236 TVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLNPI
                                                                                                                                                                                                                                                                                                                                    8 IYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     308 LYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTBSBSSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        296 LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 347
                                                                                                                                                                                                                                                                           5,
                                                                                                                                                                                                         Query Match 89.9%; Score 1677.5; DB 6; Length 347; Best Local Similarity 90.3%; Pred. No. 1.5e-142; Matches 318; Conservative 17; Mismatches 12; Indels 5;
                                                                                                                                                       347 AA; 39191 MW; 2F69F0CA9CBC3878 CRC64;
PROSITE, PS00237; G_PROTEIN RECEP F1_1; 1.
PROSITE, PS50262; G_PROTEIN_RECEP_F1_2; 1.
PROSITE; PS00290; IG_MHC; 1.
PLOTE in coupled receptor; Receptor; Transmembrane.
NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-0CT-2000 (TrEMBLrel. 15, Created)
01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-0TN-2003 (TrEMBLrel. 24, Last amnotation update)
Chemokine receptor CXCR4 (Fragment).
```

```
248 TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI 307
                                                                                                                                                                                                                               128 ILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLITIPDFIFADVSQGDISQG
                                                                                                                                                                                                                                                                                                                                                                                                                              176 DDRYICDREYPNDLWVVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     236 TVILILAFPACWLPYYIGISIDSFILLEIIKQGCBFBNTVHKWISITEALAFFHCCLNPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           296 LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       308 LYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                              188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
Q9MZM5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SO THE THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                     ò
                                                                                                                                                      В
                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A Shong X.-Z., Zhang Y.-P., Geng Z.-C.;

Andecular Evolution of the Chemokine Receptor CXCR4 Gene Sequences in Primates.";

Primates.";

Examinates.";

Examinates.";

Examinates.";

Examinates.";

Examinating.

I primates.";

Examinating.

I primates.";

Examinating.

I primates.";

Examinating.

I primates.";

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating.

Examinating
                                                                                         <del>.</del> ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        127
                                                                                                                                                                                                                                                                                                                                                             QKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             295
                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         236 TVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLNPI
                                                                                                                                                                                                           IXTSDNYTEEMGSGDYDSIKEPCFREENAHFNRIFLPTIYSIIFLTGIVGNGLVILVMGY
                                                                                                                                                                                                                                                                                                                     OKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           128 ILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
                                                                                                                                                                  8 IYTSDNYSEEVGSGDYDSNKEPCFRDENVHPNRIFLPTIYFIIFLTGIVGNGLVILVMGY
                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESBSSSFHSS 347
                                                                                     .;
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S.
    89.8%; Score 1676.5; DB 6; Length 347; 90.6%; Pred. No. 1.8e-142; ive 16; Mismatches 12; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        89.8%; Score 1676.5; DB 6; Length 347; 90.6%; Pred. No. 1.8e-142; ive 16; Mismatches 12; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   347 AA; 39205 MW; E96B66136541515C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UNN-2003 (TrEMBLrel. 24, Last annotation update)
Chemokine receptor CXCR4 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pygathrix nemaeus (Dove langur).
Query Match
Best Local Similarity 90.6%
Matches 319; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pygathrix.
NCBI_TaxID=54133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Sim
Matches 319;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               296
                                                                                                                                                                                                                                                                                                                                                                                              19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                     68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09MZQ0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT STANDARD OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE PRICE OF THE P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  $ B
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
```

DDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT

187

127

61 OKKLRSMIDKYRLHLSVADLLEVITLEFWAVDAVANWYEGNFLCKAVHVIYTVNLYSSVL

1 IYTSDNYTEEMGSGDYDSIKEPCFREENAHFNRIFLPTIXSIIFLTGIVGNGLVILVWGY 68 QKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVL

9

295

```
22 Seguence FROM N.A.

24 Sheng X.-Z., Zhang Y.-P., Geng Z.-C.;

25 Zheng X.-Z., Zhang Y.-P., Geng Z.-C.;

26 Twoledcular Evolution of the Chemokine Receptor CXCR4 Gene Sequences in Finates...;

27 Finates...;

28 Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.

28 Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.

29 SubCeLLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN COUPLED RECEPTORS.

20 GO:0016021; Cintegral to membrane; IEA.

20 GO:0016182; P:receptor activity; IEA.

30 GO:0001884; F:rhodopsin-like receptor activity; IEA.

30 GO:0001884; F:rhodopsin-like receptor protein signalin...; IEA.

30 GO:0001884; F:rhodopsin-like receptor protein signalin...; IEA.

31 InterPro; IRR003076; GPCR Rhodopsn.

32 Rhuns; PR00217; GPCRRHODOPSN.

33 Rhuns; PR00217; GPCRRHODOPSN.

34 RNNTS; PR00237; GPCRRHODOPSN.

35 RROSITE; PS002297; GPROTEIN RECEP_FI_2; I.

36 RPOSITE; PS002297; GPROTEIN RECEP_FI_2; I.

37 RPOSITE; PS002297; GPROTEIN RECEP_FI_2; I.

38 RPOSITE; PS002297; GPROTEIN RECEP_FI_2; I.

39 RPOSITE; PS002297; GPROTEIN RECEP_FI_2; I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 IYTSDNYTEEMGSGDYDSIKEPCFREENAHFNRIFLPTIYSIIFLTGIVGNGLVILVMGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 IYTSDNYSEEVGSGDYDSNXEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Pitheciinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           s,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 6; Length 347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NOW TER 1 1 SEQUENCE 347 AA, 39290 MW, E59B2070BF0F58E4 CRC64;
                                                    01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UTN-2003 (TrEMBLrel. 24, Last annotation update)
Chemoxine receptor CXCR4 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ch 89.8%; Score 1676.5; DB 6; Il Similarity 90.6%; Pred. No. 1.8e-142; 319; Conservative 17; Mismatches 11;
      $
                                                                                                                                                                                        CXCR4.
Pithecia pithecia (White-faced Baki)
   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=43777;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 319
                                                                                                                                                                                                                                                                                                                  Pithecia
Q9MZMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

8 IYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGY

```
à
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                    307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 OKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVL 120
                                                                                                                                                                                                                                     235
                                                                                                                                                                                                                                                                                                                                                                                                        295
                                            247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   68 OKKLRSMIDKYRLHLSVADLLFVIILPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVL 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  128 ILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIFDFIFADVSQGDISQG 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 ILAFISLDRYLAIVHATNSQKPRKLLAEKVVYVGVWIPALLLTIPDFIFASV----SEA 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT 247
ILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQG 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 IYTSDNYTEEMGSGDYDSIKEPCREESNAHFNRIFLPTIYSIIFLTGIVGNGLVILVMGY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Primates."

| Purimates | Full Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court |
                                                                                                                                                                                                      TVILILAFPACWLPYYIGISIDSFIILEIIRQGCEFENTVHKWISITEALAFFHCCLNPI
                                                                                                                                                                                                                                                                                                                         TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 IYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [1] -
SEQUENCE FROM N.A.
Zheng X.-Z., Zhang Y.-P., Geng Z.-C.;
"Molecular Evolution of the Chemokine Receptor CXCR4 Gene Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Macaca assamensis (Assam's macaque) (Assam's monkey).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Butheria, Primates; Catarrhini, Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89.8%; Score 1676.5; DB 6; Length 347; 90.6%; Pred. No. 1.8e-142; ive 16; Mismatches 12; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LYAFLGAKFKTSAQHALLSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UTN-2003 (TrEMBLrel. 24, Last annotation update)
Chemokine receptor CXCR4 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      347 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 319; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cercopithecinae, Macaca
NCBI_TaxID=9551;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
128
                                                                                                                                                                                                                                     176
                                                                                                                                                                                                                                                                                                                         248
                                                                                                                                                                                                                                                                                                                                                                                                        236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     188
                                                                                                                                                          188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OSMZPO
DD Q9MZPO
DT Q9MZPO
DT 01-OCT-
DT 01-JUN-
DE Chemoki.
GN CACCA.
GN CACCA.
GN CACCA.
COC BURARYO
OC CACCO.
COC BURARYO
OC CACCO.
COC BURARYO
OC CACCO.
COC BURARYO
OC CACCO.
COC BURARYO
OC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
COC CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACCO.
CACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
장
                                                    g
                                                                                                                                                     ò
                                                                                                                                                                                                          6
                                                                                                                                                                                                                                                                                                   දි දි
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
```

```
68 QKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAWADWYFGKFLCKAVHIIYTVNLYSSVL 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            128 ILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLITIPDFIFADVSQGDISQG 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09
                                                                                                                                                                                                                                                         Pygathrix roxellana (golden snub-nosed monkey).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia, Eutheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
NCBI_TaxID=61622;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 OKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 IYTSDNYTEEMGSGDYDSIKEPCPREENAHFNRIFLPTIYSIIFLTGIVGNOLVILVMGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       176 DDRYICDRFYPNDLWVVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRXALKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TVILLLAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLNPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 IYTSDNYSBEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT
                                                                                                                                                                                                                                    Zheng X.-Z., Zhang Y.-P., Geng Z.-C., "Molecular Evolution of the Chemokine Receptor CXCR4 Gene Sequences
296 LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTBSESSSFHSS 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6; Length 347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NOW TER 1 1 2
SEQUENCE 347 AA, 39205 MW, E96B66136541515C CRC64;
                                                                                                       Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89.8%; Score 1676.5; DB 6, 90.6%; Pred. No. 1.8e-142; iive 16; Mismatches 12;
                                                                      Ą
                                                                                            01-0CT-2000 (TrEMBLrel. 15, Created)
01-0CT-2000 (TrEMBLrel. 15, Last seq
01-JUN-2003 (TrEMBLrel. 24, Last ann
                                                                                                                            Chemokine receptor CXCR4 (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 90.6
Matches 319; Conservative
                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                              RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉱
```

176 DDRYICDRFYPNDLMVVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI 236 TVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLNPI

248

295

308 LYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS

127 187 175 247 235 295 9 67 끍 176 DDRYICDRFYPNDLWVVVFQFQHIMVGLILPGIVILSCYCIIISKLSHGKRKALKT 68 OKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVL 128 ILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQG DDRYICDRLYPDSLWWVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT 248 TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI C1-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2000 (TrEMBLrel. 24, Last annotation update)
01-OTM-2003 (TrEMBLrel. 24, Last annotation update)
CMCR4.
CXCR4.
Presbytis francois:
Diapsycis Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Colobinae; 8 IYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGY 1 IYTSDNYTEEMGSGDYDSIKEPCFREENAHFNRIFLPTIYSIIFLTGIVGNGLVILVWGY Gaps SEQUENCE FROM N.A.
Zheng X.-Z., Zhang Y.-P., Geng Z.-C.;
"Molecular Evolution of the Chemokine Receptor CXCR4 Gene Sequences LYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 359 5 Query Match
Best Local Similarity 90.6%; Pred. No. 1.8e-142;
Matches 319; Conservative 16; Mismatches 12; Indels 5; 308 LYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 296 LYAFLGAKFKTSAQHALISVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 347 PRT; PRELIMINARY; NCBI\_TaxID=33549; Presbytis. 188 236 308 09MZP4; Q9MZP4 RESULT 13 Q9MZP4 음  $\stackrel{>}{\delta}$ g 8 dd 8 ద 8 d ò g ठे

```
127
                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          128 ILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQG 187
                                                                                                                                                                                                                                                                                                                                                                                           67
                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                          . .; IEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DBRYICDRFYFNDLWVVVFQFQHIMVGLILFGIVILSCYCIIISKLSHSKGHQKRKALKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      248 TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI
                                                                                                                                                                                                                                                                                                                                                                                          8 IYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYPIIFLTGIVGNGLVILVMGY
                                                                                                                                                                                                                                                                                                                                                                                                                                  QXXX.RSMTDXYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVL
                                                                                                                                                                                                                                                                                                                                                                                                                                            1 IYISDNYTEEMGSGDYDSIKEPCFREENAHFNRIFLPTIYSIIFLIGIVGNGLVILVMGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TVILIIAFFACWLPYYIGISIDSFILIEIIKQGCEFENTVHKWISITEALAFFHCCLNPI
                                                                     Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                              Zheng X.-Z., Zhang Y.-P., Geng Z.-C.; "Molecular Evolution of the Chemokine Receptor CXCR4 Gene Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                     6; Length 347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12; Indels
                                                                                                                                                                                                                                                                                                                                  347 AA; 39205 MW; E96B66136541515C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Created)
Last seguence update)
                                                                                                                                                                                                                                                                                                                                                    Query Match
89.8%; Score 1676.5; DB 6.
Best Local Similarity 90.6%; Pred. No. 1.8e-142;
Matches 319; Conservative 16; Mismatches 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   347
                                                     CXCR4.
Nasalis larvatus (Proboscis monkey)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9MZP5 PRELIMINARY;
Q9MZP5;
01-OCT-2000 (TrEMBLrel. 15,
01-OCT-2000 (TrEMBLrel. 15,
                                                                                                                        SEQUENCE FROM N.A.
                                                                                                     NCBI_TaxID=43780;
                                                                                                                                                                                                                                                                                                                           NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                    89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  188
                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   296
                                                                                              Nasalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       125E
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
```

ä

01-OCT-2000 (TrEMBLrel. 15, Last sequence update) 01-JUN-2003 (TrEMBLrel. 24, Last annotation update) Chemokine receptor CXCR4 (Fragment).

Ā

PRELIMINARY;

RESULT

```
61 QKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     176 DDRYICDRFYPNDLWVVVFQFQHINVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 ILAFISLDRYLAIVHATNSQKPRKLLAEK/VYVGVWIPALLLTIPDFIFASV-----SEA 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 248 TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    236 TVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLNPI 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  128 ILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQG 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  188 DDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   68 OKKLRSMIDKYRLHLSVADLLFVIILPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVL 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 IYTSDNYTEEMGSGDYDSIKEPCFREENAHFNRIFLPIIYSIIFLIGIVGNGLVILVMGY 60
                                                                                                                                                                                         SEQUENCE FROM N.A.
Zheng X.-Z., Zhang Y.-P., Geng Z.-C.;
"Molecular Evolution of the Chemokine Receptor CXCR4 Gene Sequences in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 IYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGY
                                              Presbytis phayrei.
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Cercopithecidae, Colobinae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  296 LYAFLGAKFKTSAQHALTSVSRGSSLKIISKGKRGGHSSVSTESESSSFHSS 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89.8%; Score 1676.5; DB 6; Length 347; 90.6%; Pred. No. 1.8e-142; ive 16; Mismatches 12; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE 347 AA; 39205 MW; E96B66136541515C CRC64;
                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR003006; Ig_MFC.
Pfam; PF00001; 7tm 1; 1.
PRINTS; PR00237; GFRHODDPSN.
PROSITE; PS00237; G_PROTEIN RECEP_F1_1; 1.
PROSITE; PS00290; IG_MHC; 1.
PROSITE; PS00290; IG_MHC; 1.
G_PROTEIN; Receptor; Transmembrane.
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Chemokine receptor CXCR4 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 90.69
Matches 319; Conservative
                                                                                                                 NCBI_TaxID=66054;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

Search completed: May 17, 2004, 22:19:03 Job time : 131 secs

```
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
```

17, 2004, 04:56  19-367-052-5  attcctaatacgactcc  tyrry NuC  2012 seqs, 21671; 2010 cono cono cono cono cono cono cono con	OM nucleic - nu	nucleic search, using sw model
US-09-367-052-5  score: 695 cable: Gastatacacactcactgacatcaggggatga 68 cable: IDENTITY NUC Gapop 10.0, Gapext 1.0  3470272 seqs, 21671516995 residues mber of hits satisfying chosen parameters: 6940544  DB seq length: 200000000  Cessing: Maximum Match 100* Maximum Match 100* Listing first 45 summaries  Garabh!*  1: 99		17, 2004, 04:56:59; Search time 2770.88 Secon (without alignments) 10714.982 Million cell
## Table: IDENTITY NUC    Capop 10.0 , Gapext 1.0	t score	actcactgacatcagtcaggggatga 68
mber of hits satisfying chosen parameters:  DB seq length: 0  DB seq length: 200000000  Cessing: Minimum Match 100%  Maximum Match 100%  Listing first 45 summaries  GenEmbl:*  1: gb_ba:*  2: gb_htg:*  3: gb_nt:*  4: gb_on:*  5: gb_bt:*  10: gb_ro:*  11: gb_bs:*  12: gb_bt:*  13: gb_un:*  13: gb_un:*  13: gb_un:*  14: gb_un:*  15: em_fun:*  16: em_fun:*  17: em_hun:*  18: em_hun:*  19: em_nu:*  20: em_oo:*  21: em_oo:*  22: em_oo:*  23: em_ph:*  24: em_hun:*  25: em_fin:*  26: em_hun:*  27: em_tig_other:*  28: em_htg_nte:*  29: em_vi:*  21: em_htg_nte:*  21: em_htg_nte:*  22: em_htg_nte:*  23: em_htg_nte:*  33: em_htg_nte:*  34: em_htg_nte:*  35: em_htg_nte:*  36: em_htg_nte:*  37: em_htg_nte:*  38: em_htg_nte:*  38: em_htg_nte:*  39: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  30: em_htg_nte:*  40: em_htg_nte:*  40: em_htg_nte:*  40: em_htg	table	TY_NUC 10.0 , Gapext
DB seq length: 0 DB seq length: 0 DB seq length: 200000000  Ocessing: Minimum Match 100%  Listing first 45 summaries  GenEmbl:*  1: gb_ba:* 2: gb_om:* 4: gb_om:* 5: gb_om:* 6: gg_pat:* 7: gb_ph:* 8: gb_om:* 11: gb_ex:* 12: gb_ox:* 12: gb_ox:* 13: gb_ox:* 14: gb_ox:* 15: gb_ox:* 15: gb_ox:* 16: em_fun:* 17: em_mi:* 18: em_mi:* 18: em_mi:* 18: em_mi:* 19: em_mi:* 19: em_mi:* 19: em_mi:* 10: em_fun:* 10: em_hum:* 11: em_hum:* 12: em_ox:* 13: em_bi:* 14: em_hig-hum:* 15: em_hig-hum:* 16: em_hig-hum:* 17: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:* 18: em_hig-hum:*		seqs, 21671516995 residue
DB seq length: 0  DB seq length: 2000000000  Listing first 45  Listing first 45  Listing first 45  Genembl: *  1: gb ba: *  2: gb htg: *  3: gb htg: *  4: gb ow: *  5: gb ph: *  8: gb ph: *  11: gb ph: *  12: gb ph: *  13: gb ph: *  11: gb ph: *  13: gb ph: *  13: gb ph: *  14: gb pi: *  11: gb se: *  11: gb ba: *  12: gb ph: *  13: gb ph: *  13: gb ph: *  13: gb ph: *  14: gb vi: *  11: gb ev: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  11: gb vi: *  12: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  14: gb vi: *  15: gb vi: *  16: gb vi: *  17: gb vi: *  18: gb vi: *  18: gb vi: *  19: gb vi: *  10: gb vi: *  10: gb vi: *  11: gb vi: *  11: gb vi: *  12: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  14: gb vi: *  15: gb vi: *  16: gb vi: *  17: gb vi: *  18: gb vi: *  18: gb vi: *  19: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  11: gb vi: *  11: gb vi: *  12: gb vi: *  13: gb vi: *  13: gb vi: *  14: gb vi: *  15: gb vi: *  16: gb vi: *  17: gb vi: *  18: gb vi: *  18: gb vi: *  19: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  11: gb vi: *  11: gb vi: *  12: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  13: gb vi: *  14: gb vi: *  15: gb vi: *  16: gb vi: *  17: gb vi: *  18: gb vi: *  18: gb vi: *  19: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb vi: *  10: gb	number	hits satisfying chosen parameters:
General   Minimum Match   00	DB DB	ength: ength:
Genzabl:*  1: gb ba:*  2: gb_htg:*  4: gb_om:*  5: gb_om:*  6: gb_ph:*  8: gb_op:*  11: gb_ph:*  11: gb_ph:*  12: gb_ph:*  11: gb_vi:*  11: gb_vi:*  11: gb_vi:*  12: gb_op:*  11: gb_vi:*  12: gb_op:*  11: gb_vi:*  12: gb_op:*  13: gb_un:*  14: gb_vi:*  15: em_bu:*  16: em_fun:*  17: em_hum:*  18: em_pi:*  22: em_ov:*  23: em_pi:*  24: em_pi:*  25: em_pi:*  26: em_ti:*  27: em_pi:*  28: em_htg_hum:*  30: em_htg_hum:*  31: em_htg_num:*  32: em_htg_num:*  33: em_htg_num:*  34: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  36: em_htg_num:*  37: em_htg_num:*  38: em_htg_num:*  38: em_htg_num:*  39: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*  30: em_htg_num:*	Post-processing	Minimum Match 0% Maximum Match 100 Listing first 45
	Database .	

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Ω		
4		
7		
5		
÷		
Ē		
3		
ŋ		

Description		D87747 Mus musculu	X99582 M.musculus	AB000803 Mouse mRN	US9760 Mus musculu	Z80112 Mus musculu Z80113 Mus musculu		X99581 M.musculus	AC143861 Fan CLOG1 AC147556 Mus muscu	Z80111 Mus musculu	AC122097 Rattus no AF452185 Rattus no	U90610 Rattus norv	AF019378 Cercopith ax129916 Homo sani	AX287116 Sequence	AX548790 Sequence	E37853 Anti-HIV ag	AR222504 Sequence AR380668 Sequence	D10924 Homo sapien	G28514 SHGC-31461 M99293 Homo sapien	X71635 H. sapiens m	AF031089 Papio ham AF015970 Semience	AR060748 Sequence	AR070433 Sequence	II3753 Sequence 4	I24455 Sequence 3	AB015943 Chloroceb AX409496 Sequence	AX663641 Sequence	L06797 Human (clon	AF291672 Macaca fa	AF452613 Saimiri s	U73740 Macaca mula	D85579 Macaca Iasc AF172212 Pygathrix	AF172238 Pithecia	Ø	DY MENA linear ROD 07-FEB-1999 CKR-4, complete cds.  Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus. Libana, K., Lizasa, H., Bleul, C.C., Lida, N., Springer, T.A. and
QI	- ;	D87747	MMIRSTRDT		MMU59760	MMLCR12	MMU65580	MMLESTRGN	AC145861 AC147556	MMLCR11	AC122097	RNU90610	AF019378	AX287116	AX548790	E37853	AR222504	HUMHM89	G28514 urmered	HSNPYRLA	AF031089	AR060748	AR070433	AK103430 I13753	124455	AB015943 AX409496	AX663641	HUMGPCR	AF291672	AF452613	MMU73740		172	ALIGNMENTS	1877 k murine ( use) ordata; dentia; T., Tack
80	;	0.0	٠.	۰.	0	0	0	0		0	-	0.0										ο φ										on on	თ		0 5
Length		1877	1817	1809	1223	1180	3366	37	175370	6	190149	1050	1126	1679	1679	1664	1664	1664	1664	1645	1059	1737	1737	1737	1737	1068	1670	1670	1078	1059	1059	1078	1044		lus mRNA for GI:1772445 CR-4. lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo lus (house mo
& Query Match		0.0	30		9			6		7	60				ر ا ا			'n	ů.	. 4	4.	64.1	4.	44	4.	4. ~	. n	m (	÷.	 n	<u>.</u>	63.4 63.4	m		747 muscu 747 ine CX muscu muscu muscu muscu muscu muscu muscu muscu muscu muscu
0.00 en	1 1	m ,	9 5		59		. 4. 	54		ຸທ	. 5	69.	52.		46.	4. 4. 5. 0.	4 r	4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	. v	41.	40	439.2	9.0	ა ო ი	39.	38	э.		م	, 4.	m	3343			
Result		<b>н</b> (	73 14	J. 44	ហ	φr	<b>~ 00</b>	σ.	110	12	E .	15	16	18	<b>о</b> с	212	200	4 2	C1 C	27	8 6	30	31	M 60	34	32	3.0	8 6	χ. 4 γ. C	<b>4.4</b>	42	4. 4. 6. 4.	45		RESULT 1 D87747 LOCUS DEFINITION VERSION VERYWORDS SOURCE ORGANISM REFERENCE AUTHORS

us-09-367-052-5.rge

ო

us-09-367-052-5.rge

```
90...1169
/gene="lestr"
/codon_start=1.
/product="leukocyte-derived seven transmembrane domain
receptor"
/protein_id="CAA67894.1"
/db_xref="GGA:P70658"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGACGTCAGCCAGGGGACATCAGTCAGGGGGATGA 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGACGTCAGCCAGGGGACATCAGTCAGGGGGATGA 685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /tissue_type="thymus"
/dev_stage="6-8 weeks old"
1. .1575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. 1575
/organism="Mus musculus"
/mol type="mkNA"
/strain="B6CBA"
/db xref="taxon:10090"
/haplotype="diploid"
/sex="female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene="lestr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            X99582.1 GI:1666648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 1575)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus
                                                                                                                                                                                                                              470
                                                                                                                                                                                                                                                                                                                                                         488
                            248
                                                                 350
                                                                                                        308
                                                                                                                                                  410
                                                                                                                                                                                                                                                                        428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 3
MMLESTRPT
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REMARK
COMMENT
FEATURES
                                                                                                                                                                                                                                                               셤
                                                    ठे
                                                                                             g
                                                                                                                                       ठ
                                                                                                                                                                                 용
                                                                                                                                                                                                                      \dot{\delta}
                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /8.__1157
/codon_start=1
/codon_start=1
/poduct="chemokine" (C-X-C motif) receptor 4"
/poduct="chemokine" (C-X-C motif) receptor 4"
/potorein_id="hallide5.1"
/db_xxef="c1:21618782"
/db_xxef="c1:21618782"
/db_xxef="c1:21618782"
/translation="merry yosy yorktrs york this yaboli. PFWANDAWA
DWYFGKFLCKAVHIYTVNLYSSVILIAFISIDRYLAINYHATNSQRPRKLLAEKAVYV
GVWIPALLITIPDFIRADVSQCDISQDBYTICALLYBEARVYV
GVWIPALLITIPDFIRADVSQCDISQDBYTICALLYBEARVYV
                                                                                                                                                                                                         Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/Linf. at: http://image.llnl.gov Series: IRAK Plate: 61 Row: d Column: A.T. This clone was selected for full length sequencing because it passed the following selection criteria: Similarity but not identity to protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GIVILSCYCIIISKLSHSKGHQKRKALKTTVILILAFFACWLPYYVGISIDSFILLGV
IKQGCDFESIVHKWISITEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLK
ILSKGKRGGHSSVSTESESSSFHSS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            246. .1004
/note="7tm_1; Region: 7 transmembrane receptor (rhodopsin
family)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .lb1/
/gene="synonyms: LESTR, fusin, PB-CKR, PBSF/SDF-1, CD184"
/db_xref="focusID:12767"
/db_xref="MGI:109563"
/db_vien"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 349
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genome
Sequencing Center
Center code: BCM-HGSC
Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Guntact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged, H.,
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
A.N., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            128 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             67
                                                                                                                                                                                                                                                                                                                                                                                                                                     /db_xref="taxon:10090"
/clome="MG0:3626 IMM50:592479"
/tissue type="Mammary tumor. Metallothionien-TGF alpha model. Io month old virgin mouse. Taken by biopsy."
/clome_libe="NGT GAP_Mam1"
/lab_host=="DH10B"
/lab_host=="DH10B"
/note="vector: pGMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     68 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAGGTAGCAGTGACCCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACCACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTOGGGTCTGGAGTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      230 TITCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 92.8%; Score 636; DB 10; Length 1817; Best Local Similarity 100.0%; Pred. No. 5.2e-157; Matches 636; Conservative 0; Mismatches 0; Indels 0.
                                                                                                                                                                                                                                                                                                                                                                          /organism="Mus musculus"
/mol_type="mRNA"
/strain="FVB/N"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'db_xref="CDD:pfam00001"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .1817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SGS
                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
```

셤 à ద ò 셤 à g

```
MMLESTRPT 1575 bp mRNA linear ROD 11-NOV-1996 M.musculus mRNA for leukocyte-dervied seven transmembrane domain receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Moepps, B.
Direct Submission
Submitted (19-JUL-1996) B. Moepps, Universitaet Ulm,
Submitted (19-JUL-1996) B. Moepps, Universitaet Ulm,
Pharmacology/Toxicology, Albert-Einstein Allee 11, D-89081 Ulm, FRG
Revised by author 11-NOV-96
On Nov 12, 1996 this sequence version replaced gi:1657351.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Moepps, B., Frodl, R., Kessler, H. and Gierschik, P.
cDNA cloning and genomic organization of a leukocyte-derived seven
transmembrane domain receptor (LESTR) from mouse: a murine
homologue of the human HIV-1 entry cofactor fusin
                                                                                    409
                                                                                                                                                                                               469
                                                                                                                                                                                                                                                                                                     529
                                                                                                                                                                                                                                                                                                                                                                                                                589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              548 AGTCTATGTGGGCGTCTGGAGTCTCAGCCTCCTCTGACTATACCTGACTTCATCTTTGC 607
                             307
                                                                                                                                  367
                                                                                                                                                                                                                                                 427
                                                                                                                                                                                                                                                                                                                                                            487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              lestr gene; leukocyte-derived seven transmembrane domain receptor.
Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                      368 AGTIGATGCCATGGCTGACTGGTACTTTGGGAAATTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                     CTACACTGTCATCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCACCTGGACCGGTA
CAATGGATGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATAGGACAAA
                                                                                                                                                                                                                                                                                                        CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                   590 AGTCTATGTGGGCGTCTGGATCCCAGCCTTCCTCGTGACTATACCTGACTTCATCTTTGC
                                                                                                                    GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACCTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTCGCCATTGTCCACGCCACCAAAGGCCAAGGAAACTGCTGGTGAAAAGGC
```

```
349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              169
                                     JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
AUTHORS
TITLE
                                                                                                                                                                                                                                                                        9
                                                                                                                                                                PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
/db_xref="SWISS-PROT:P70658"
/translation="MPEPSV81YTEDDYSEEVOSGDYDSNKEPCFRDENVHFNRIFLP
/translation="MPEPSV81YTEDDYSEEVOSGDYDSNKEPCFRDENVHFNRIFLP
/translation="MPEPSV81YTEDDYSEEVOSGDYDSNYDDAN-
DWYFGRFLCKAVHITYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYV
GVWIPPALLILTIPFIPRANSQGDISGODBXTLORLYPDSLAMWNVFQFRHINGVLUP
GIVILSCYCTIISKLESHSKGHQKRKALKTTVLLILAFFACMLPYYVGISIDSFTLLGY
IKKGGCDFESIVHKWISITEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLK
ILSKGRKGGASSVSTESSESSFHSS"
/gene="lestr"
                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ROD 05-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                649
                                                                                                                                                                                                                                                                                                                              229
                                                                                                                                                                                                                                                                                                                                                                                   289
                                                                                                                                                                                                                                                                                                                                                                                                             259
                                                                                                                                                                                                                                                                                                                                                                                                                                        349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCGCTGGACCGGTA 499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AB000803 1809 bp mRNA linear ROD 05-FEB-199 AB000803. Gr.1816445
AB000803.1 Gr.1816445
Murrine CXCR-4, fusin.
Mus musculus (house mouse)
Mus musculus (house mouse)
Mus musculus (house mouse)
Interpretation (house mouse)
Interpretation (house mouse)
Interpretation (house mouse)
Interpretation (house)
Interpretation (house)
Interpretation (house)
Interpretation (house)
Interpretation (house)
Interpretation (house)
Interpretation (house)
Interpretation (house)
Interpretation (house)
Interpretation (house)
                                                                                                                                                                                                                    109
                                                                                                                                                                                                                                                                        169
                                                                                                                                                                                                                                                                                                    139
                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                             79
                                                                                                                                                                                                                                                                                                                                               CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGAAGGAGGATAAGGACGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTOTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTGC
                                                                                                                                                                                                                                    20 GCAGGIAGCAGIGACCCTCTGAGGCGTTTGGIGCTCCGGTAACCACCACGCTGTAGAGC
                                                                                                                                                                                                                                                                          GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                        GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTGTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                   TITCAATAGGAICITCCTGCCCACCATCTACATCATCTTCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                             rrrcaaradearcrrccreccaccarcracrrcarcarcrrcarcraecreecaradree
                                                                                                                                                                                                                                                                                                                                                                                                                                        CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACCACCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTTGATGCCATGCTGACTGGTACTTTGGGAAATTTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTCTATGTGGGGGGCGTCTGGAGCCTCCTCCTGACTATACCTGACTTCATCTTTGC
                                                                                                                                                                                                                       GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACCACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                               AGTGGGGTCTGGAGTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA
                                                                                                                                                                                            Gapa
                                                                                                                                                                  1575;
                                                                                                                                                                                            .
0
                                                                                                                                                               Query Match
92.1%; Score 631.2; DB 10; Length
Best Local Similarity 99.5%; Pred. No. 9.6e-156;
Matches 633; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGACGTCAGCCAGGGGACATCAGTCAGGGGGATGA 685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         polyA_signal
                                                                                                                                                                                                                                                                                                                                                            140
                                                                                                                                                                                                                                                                                                                                                                                                               200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         650
                                                                                                                                                                                                                                                                                                                                                                                     230
                                                                                                                                                                                                                                                                                                                                                                                                                                          290
                                                                                                                                                                                                                                                                                                                               170
                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                           110
                                                                                                                                                                                                                                                                                                       80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 4
AB000803
LOCUS
DEFINION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                   $ g
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                          g
```

REFERENCE

```
Suzuki,G., Nakata,Y., Uzawa,A., Shirasawa,T., Saito,T. and Mita,K.

Molecular cloning of murine CXCR-4, a murine homologue of HIV entry
cor receptor, that is expressed on leukocyte and other organs
Unpublished
22 (bases 1 to 1809)
33 Suzuki,G.
34 Suzuki,G.
35 Suzuki,G.
36 Direct Submission
36 Direct Submission
37 Submitted (199-JAN-1997) Gen Suzuki, National Institute of
Radiological Sciences, Division of Radiation Health; 4-9-1,
Anagawa, Inage-ku, Chiba, Chiba, Chiba, Dapan
(B-mall:genzuki@unmxl.nirs.go.jp, Tel:043-251-2111,
Fax:043-284-1736)
36 Suzuki@unmxl.nirs.go.jp, Tel:043-251-2111,
Fax:043-284-1736)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /translation="MEPISYSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP
TIYPIIFLIGIVGNGLVILVMGYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMA
DWYFGKFLCKAVHIIYTVNLYSSVLILAFISLDRYLAIVATNSQRFRKLLAEKAVYV
GWYDPALLITIPDFIPADVSGGDISQGDRYICKTRYPDSLMWVYFOFGHIWGLVLYD
GIVILSCYCIISKLFSHSKGHQKRKALKTYVILILAFFACWLPYYVGISIDSFFLLGY
IKQGCDFESINHKWISITEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLK
ILSKGKRGGHSSVSTESESSSFHSS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 CGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       229 ATTICAATAGGAICTICCIGCCCACCAICTACTICAICAICTICTIGACTGGCATAGICG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    289 GCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGGGATGACGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 GCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGGATGACGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101 AGTACCGGCTGCACCTGTCAGTGGGTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      409 CAGTIGAIGCCAIGGCIGACTGGIACTTIGGGAAAITTTIGIGIAAGGCIGICCATAICA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGTGGGGTCTGGAGAGTATGACTCCAAGAAGGAACCTGCTTCCGGGATGAAAAGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match

90.3%; Score 618.6; DB 10; Length 1809;
Best Local Similarity 99.2%; Pred. No. 2.1e-152;
Matches 632; Conservative 0; Mismatches 4; Indels 1;
                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
```

셤

ò 8

8 8

8 8 8

a ò

a

360 510

300 450 570

420

YFGKFLCKAVHIIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKLLABKAVYGV WIDALLLTIDPFIFADVSQGIISQGDDRYICDRLYDDSLWMVYPQFGHIMVGLILPGI VILSGYCIIISKLSHSKGHQKRKALKTTVILILAFFACWLPYYVGISIDSFILLGVIK QGCDFESIVHKWISTTEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKIL SKGKRGGHSSVSTESESSFHSS" Ö 315 375 250 435 310 495 615 675 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAAGTTATGACTCGA 195 ACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCA 130 TTCTCATCCTGGCCTTCATCAGCCTGGACCGGGTACCTCGCCATTGTCCACGCCACGCCACGCACACA 430 ACAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCA 255 TCTACTICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG 190 TTGGGAAATTTTTGTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCGGGGG370 TICTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACA 555 490 70 TCAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCA GTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTG ACCTCCTTTGTCATCACACCCTTTTGGGCAGTTGATGCCATGGCTGATACT TTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCG GTCAAAGGCCAAGGAAACTGCTGGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAG GTCAAAGGCCAAGGAAACTGCTGGACTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAG TCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG GTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTG ACCICCICITIGICALCACICCCCITICIGGGCAGITGAIGCCAIGGCTGACTGGIACT Gaps Query Match
Best Local Similarity 99.8%; Pred. No. 7.3e-134;
Matches 549; Conservative 0; Mismatches 1; Indels 0; /number=1 16. .>1180 /gene="lcr-1" /number=2 <1. .15 /gene="lcr-1" 685 AGGGGGATGA 560 AGGGGGATGA 919 디 71 131 316 376 251 311 556 431 136 196 256 191 436 496 371 491 919 551 exon exon ORIGIN d ద 5 à ПP g ò g ò 임 δ a δ g Ω à ò ò ઠે ò

RESULT 7

WYLCR13

LOCUS

LOCUS

DEFINITION MUS musculus lcr-1 gene, exon 2.

ACCESSION 260113.1 GI:1655638

KEYWORDS CXC chemokine receptor 4; CXCR-4; lcr-1 gene.

CXC chemokine receptor 4; CXCR-4; lcr-1 gene.

MUS musculus (house mouse)

ORGANISM Mus musculus (house mouse)

ORGANISM Mus musculus (house mouse)

ORGANISM SQUECE

Mammalia: Butheleostomi;

Mammalia: Butheleostomi;

Mammalia: Butheleost Mus.

Eukaryota; Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus. (Dases 1 to 1422)
AUTHORS Schubel, A., Burgstahler, R. and Lipp, M.
TITLE The mouse homologue of the human HIV coreceptor CXCR-4 (FUSIN):
High expression in thymus and lymphoid tissues

REFERENCE 2 (Dases 1 to 1422)
AUTHORS
Lipp,M.
TITLE Direct Submission
JOURNAL Submission
JOURNAL Submitted (11-582-1996) Martin Lipp, Max-Delbrueck-Center for Lipp,Max-Delbrueck-Center for Molecular Medicine, MDC, Robert-Roessle-Strasse 10, BERLIN-BUCH, D-13122, GERMANY
D-13122, GERMANY
Nolecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecular Molecula

ö 180 240 360 540 299 359 300 419 479 420 539 480 599 629 600 719 999 779 240 IGICCCTGTTTCCTTTGCAGATATACACTTCTGATAACTACTCTGAAGAAGAAGAAGGGGGTCTG 300 GAGACTATGACTCCAACAAGAACCCTGCTTCCGGGATGAAAAGGTCCATTTCAATAGGA TCTTCCTGCCCACCATCTACTTCATCATCTTCTTGGCATAGTCGGCAATGGATTGG 360 TCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGGCAATGGATTGG 420 TGATCCTGGTCATGGGTTACCAGAAGCTAAGGAGCATGACGGACAAGAAGTACCGGCTGC 480 ACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCA 540 IGGCIGACIGGTACTITIGGGAAATTITITIGIGIAAAGGCIGICCATAICAICTACACIGICA 481 ACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTG 720 GCGTCTGGATCCCAGCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCC TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTG 181 GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGGATGAAAACGTCCATTTCAATAGGA 301 TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGGCTGC 361 ACCIGICAGIGGCIGACCICCICITIGICALCACICCCCTICIGGGCAGITGALGCCA TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA 600 accreracaccaccerrercarecresecrireareaceresacceraceresecreseraceres GOGICTGGATCCCAGCCCTCCTCATACTATACCTGACTTCATCTTTGCCGACGTCAGCC Gaps ô 79.7%; Score 545.8; DB 10; Length 1422; 97.9%; Pred. No. 3.6e-133; tive 0; Mismatches 12; Indels 0; 685 804 AGGGGGACATCAGTCAGGGGGATGA AGGGGACATCAGTCAGGGGGATGA Query Match Best Local Similarity 97.94 Matches 553; Conservative 241 421 541 601 661 780 셤 엄 임 g g 셤 ò ò ò ò ò 8 ద 8 8 P 8 g

RESULT 8

```
אנינייסטטאט 3366 bp DNA linear ROD 13-DEC-1996
Mus musculus fusin (CXCR-4) gene, complete cds.
U65580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /translation="MEDISVS1YTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP
TIYFIIPLIGIVGNGLVILWGYQKKIRSNTDKYRLHLSVADLLFVITLPFWAVDAMA
DWYFGKFLCKAVHIIYTVNLYSSVLILAFISLDRYLAIVHATNSQRFRKLLAEKAVVV
GVHTPALLITIPDFIRADLAYOSGDISGDDRYICDRLYDSLMWVFQPQHINVGLLDF
GIVILSCYCIIISKLSHSKGHQKKALKTTVLLLAFFACWIPYYVGISIDSFILLGY
IKQGCDFSIVHKWISTTEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLK
ILSKGRRGGHSSVSTESESSSFHSS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2348 GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAAGGTCCATTTCAATAAGA 2407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2288 TGTCCCTGTTTCCTTTGCAGATATACACTTCTGATACTACTCTGAAGAAGAAGGGGGTCTG 2347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA 240
                                                                                                                                                                                                           Mus musculus
Mus musculus
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Losses, Musinaes Lo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 (bases 1 to 3366)
Heesen, M., Berman, M.A., Gerard, C. and Dorf, M.E.
Direct Submission
Submitted (30-JJL-1996) Pathology, Harvard Medical School, 200
Longwood Avenue, Boston, MA 02115, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match

79.7%; Score 545.8; DB 10; Length 3366;
Best Local Similarity 97.9%; Pred. No. 3.7e-133;
Matches 553; Conservative 0; Mismatches 12; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          J. Immunol. 157 (12), 5455-5460 (1996) 97113334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16. .>2307
/gene≂"CXCR-4"
/note="alternate intron 1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Mus musculus"
/mol type="genomic DNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note="alternate exon 1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="CXCR-4"
/number=1
2308. .3366
/gene="CXCR-4"
/number=2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . .15
gene="CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene="CXCR-4"
                                                                                                                                                 U65580.1 GI:1731650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               number=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                co-factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8955194
MMU65580
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 intron
                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dp
```

දු පු

```
67530:
68982:
69082:
70891:
72172:
72272:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73714:
75185:
75285:
76854:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5346
101466
101466
101466
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
10146
1014
              RESULT 10
AC145861
LOCUS
DEFINITION
                                                                                                                                   VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
JOURNAL
REFERCE
AUTHORS
TITLE
JOURNAL
                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                2705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2346 GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA 2405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2406 TCTTCCTGCCCACCATCTACTTCATCATCTTCTGACTGGCATAGTCGGCAATGGATTGG 2465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2466 TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGACAAGTACCGGCTGC 2525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2526 ACCTGTCAGTGGCTGACCTCCTCTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCA 2585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGCTGACTGGTACTTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTGG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  seven transmembrane domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCICIACAGCAGCGIICICAICCIGGCCIICAICAGCCIGGACCGGIACCICGCCAIIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGTCTGGATCCCAGCCCTCCTCCTATACCTGACTTCATCTTTGCCGACGTCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGTCCCTGTTTCCTTTGCAGATATACACTTCTGATAACTACTCTGAAGAAGTGGGTTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361 ACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 541; DB 10; Length 3770;
Pred. No. 7e-132;
0; Mismatches 15; Indels 0
                                                                                                                                                                                                                                                                                                                                                        105. .2305
/gene="lestr"
/note="splice variant/intron"
11. .2305
/gene="lestr"
/number=1
                                                                            codon_start=1
product="leukocyte-derived
                                 join(90. .110,2306. .3364)
gene="lestr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGGGGACATCAGTCAGGGGGATGA 2850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGGGGACATCAGTCAGGGGGATGA 685
oin(90. .110,2306.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2306. .>3770
/number=2
3693. .3698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 97.3%;
Matches 550; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      polyA_signal
ORIGIN
                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                        intron
    gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     exon
                                      CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Сþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
```

```
AC145861
Pan troglodytes chromosome UNK clone RP43-21D9, *** SEQUENCING IN PROCESSS ***, 39 unordered pieces.
                                                                                           AC145861
AC145861.1 GI:33386791
HTG; HTGS_PHASE1.
Pan troglodytes
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
(Bases 1 to 175370)
                                                                                                                                                                                                                                                                                                                                                                                          Dates 1 to 175370)
Wilson, R. K.
Direct Submission
Submitted (01-AUG-2003) Genetics, Genome Sequencing Center, 4444
Forest Park Parkway, St. Louis, MO 63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        * NOTE: This is a 'working draft' sequence. It currently consists of 39 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as truns of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Center: Washington University Genome Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     545: contig of 5345 bp in length 17195: contig of 11750 bp in length 17295: contig of 11750 bp in length 17295: gap of unknown length 17295: gap of unknown length 33250: contig of 15955 bp in length 45646: contig of 15296 bp in length 45646: contig of 12296 bp in length 61992: contig of 16246 bp in length 62092: contig of 16246 bp in length 63423: contig of 1311 bp in length 63623: gap of unknown length 6456: gap of unknown length 6466: contig of 1143 bp in length 6466: gap of unknown length 6594: contig of 1143 bp in length 66094: contig of 1326 bp in length 6730: gap of unknown length 6730: gap of unknown length 69082: gap of unknown length 69082: gap of unknown length 72172: contig of 1819 bp in length 72172: contig of 1819 bp in length 72172: contig of 1819 bp in length 72172: contig of 1819 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           contig of 1181 bp in length
gap of unknown length
contig of 1342 bp in length
gap of unknown length
contig of 1471 bp in length
gap of unknown length
contig of 1869 bp in length
gap of unknown length
gap of unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length
bp in length
length
bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The sequence of Pan troglodytes clone
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     contig
gap of
contig
```

14: gap of unknown length
17: gap of unknown length
17: gap of unknown length
17: gap of unknown length
17: gap of unknown length
18: contig of 1393 bp in length
19: gap of unknown length
18: contig of 178 bp in length
18: contig of 178 bp in length
18: contig of 178 bp in length
18: contig of 1678 bp in length
18: contig of 1678 bp in length
18: contig of 1678 bp in length
18: gap of unknown length
18: contig of 1678 bp in length
18: contig of 1678 bp in length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown length
18: gap of unknown 45747. .61992 /note="assembly\_name:Contig104" 62093. .63423 /note="assembly\_name:Contig16" 63524. . 64666 /note="assembly\_name:Contig3" 64767. . 65994 /note="assembly\_name:Contig45" 66095. . 67430 note="assembly\_name:Contig48" 'note="assembly\_name:Contig56" /note="assembly\_name:Contig5" 69083. .70891 /organiem="Pan troglodytes" /mol\_type="genomic DNA" /db\_xref="taxon: 9598" /chromosome="UNK" /clone="RP43-21D9" 79965 810465 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810466 810 31332 misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature FEATURES

```
167962 igrecergirrecirigeagararacacricidaraacracrecidaagaagigggricig 168021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 TGGAACCGATCAGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGAAGTGGGGGTCTG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181 GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTGG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 97.3%; Pred. No. 8.5e-132;
Matches 550; Conservative 0; Mismatches 15; Indels 0;
                                                                                                                                                                                                                                                                                                                     73715. .75185 7-
700ce="assembly_name:Contig68"
75286. .76854
70555. .76814
70555. .79413
700ce="assembly_name:Contig73"
78114. .79964
700ce="assembly_name:Contig73"
700ce="assembly_name:Contig77"
700ce="assembly_name:Contig77"
700ce="assembly_name:Contig77"
700ce="assembly_name:Contig80"
7011. .8678
700ce="assembly_name:Contig80"
7011. .8678
7012. .86993. .98893
7012. .30570
7012. .30570
7011. .30570
7011. .30570
7011. .30570
7011. .30570
                               note="assembly_name:Contig67"
                                                                                                                                                                                                                                                                                                  3308. .96658
note="assembly_name:Contig85"
           note="assembly_name:Contig60"
                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                      misc_feature
                                                                  misc_feature
                                                                                        misc_feature
                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
misc_feature
                                            misc_feature
                                                                                                                 misc_feature
                                                                                                                                                             misc_feature
                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

QY         301 TGATCCTGGTCATGGGTTACCAGAAGAGGAGCATGACGACAAGTACCGGCTGC         360           bb         168142 TGATCCTGGTCATGGGTTACCAGAAGAAGGAGCTAAGGAGCATGACGACATGACGACTGCGTGC         168201           QY         361 ACCTGTCAGTGACCTCATCGTCATCACACTCCCCTTCTGGGAGTTGATGCCA         420	168202 ACCTGTCAGTGACCTCTCTTTGTCACCCCTTCTGGGCAGTTGATCCA 12 168202 ACCTGTCAGTGGCTGACCTCCTCTTTGTGTAGCACTCCCCTTCTGGGCAGTTGATGCCA 16 421 TGGCTGACTGGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA 48 168262 TGGCTGACTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA 16 168262 TGGCTGACTGTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA 16	481 ACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTG  168322 ACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCTATTG  541 TCCACGCCACCACAACAGTCAAAGGCCAAGGAAACTGCTGGCTG	Qy         601 GCGTCTGGATCCCAGCCTCCTCTGATATACCTGACTTTTGCCGACGTCAGCC 660           Db         168442 GCGTCTGGATCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCC 168501           Qy         661 AGGGGACATCAGTCAGGGGGATGA 685           Db         168502 AGGGGGATCAGGGGGGATGA 168526	AC147556  AC147556  AC147556  AC147556  AC147556  ACCESSON  ACCESSON  ACCESSON  ACCESSON  ACCESSON  ACCESSON  AC17556  AC13397582  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  ACCESSON  AC17556  ACCESSON  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  AC17556  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756  AC1756

```
91361 GAGACTATGACTCCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA 91420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            91301 TGTCCCTGTTTCCTTTGCAGATATACACTTCTGATAACTACTCTGAAGAGGTGGGTTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAGAAGTGGGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 185215;
Query Match 79.0%; Score 541; DB 2; Length 18
Best Local Similarity 97.3%; Pred. No. 8.5e-132;
Matches 550; Conservative 0; Mismatches 15; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. 185215

/organism=Mwe musculus"

/organism=Mwe musculus"

/mol_type="genomic DNA"

/db_xref="taxon:10090"

/chromosome="UNK"

/clone="RF23-480N14"

1. 1119

/noce="assembly_name:Contig51"

/note="assembly_name:Contig103"

/note="assembly_name:Contig103"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        // Ancte=assembly_name:Contigl26"
// Ancte=assembly_name:Contigl26"
// Note=assembly_name:Contigl27"
// Note=assembly_name:Contigl28"
// Note=assembly_name:Contigl28"
// Note=assembly_name:Contigl28"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57814. 84551
/note="assembly_name:Contig130"
84652. 122285
/note="assembly_name:Contig131"
122386. 185215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'note="assembly_name:Contigl32"
                                         1120
263
263
2738
2738
5060
6104
6111
11915
11915
11945
11855
11845
11855
11845
11855
11845
11855
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
11845
1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
```

NOTE: This is a 'working draft' sequence. It currently consists of 11 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.

```
g
                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                             91541 ACCIGICAGIGGCIGACCICCICITIGICALCACACICCCCTICIGGGCAGITGAIGCCA 91600
                                                                                   91540
                                                                                                                                                                                     91661 ACCICIACAGCAGCGTICICATCCIGGCCTICATCAGCCTGGACCGGTACCTCGCTATIG 91720
                                                                                                                                                                                                                                                                                                             91721 TCCACGCCACCAACAGTCAGAGGCCAAGGAAACTGCTGGAAAAAGGCAGTCTATGTGG 91780
                                                                                                                                                                                                                                                                                                                                                       91781 GCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCC 91840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ROD 07-0CT-1996
  300
                                                        360
                                                                                                                                                                      480
                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                  900
                                                                                                              420
                                                                                                                                                                                                                                                                                                                                         601 GCGTCTGGATCCCAGCCCTCCTCATACCTGACTTCATCTTTGCCGACGTCAGCC 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus. (bases 1 to 528)
Schubel, A., Burgetahler, R. and Lipp, M.
The mouse homologue of the human HIV coreceptor CXCR-4 (FUSIN): High expression in thymus and lymphoid tissues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
Submitted (11-SEP-1996) Martin Lipp, Max-Delbrueck-Center for
Molecular Medicine, MDC, Robert-Roessle-Strasse 10, BERLIN-BUCH
TCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGGCAATGGATTGG
                    91421 TCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTGG
                                                                               91481 TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC
                                                     TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC
                                                                                                                                                                   TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA
                                                                                                                                                                                                                          ACCICTACAGCAGCGTTCTCATCCTGGCCTTCACCAGGCCTGGACCGGTACCTCGCCATTG
                                                                                                                                                                                                                                                                                ACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCCAGTTGATGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /function="receptor for chemokine SDF-1"
(standard_name="CXC chemokine receptor 4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus mRNA encoding CXCR-4.
                                                                                                                                                                                                                                                                                                                                                                                                                   91841 AGGGGACATCAGTCAGGGGGATGA 91865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |oin(84. .98,99. :>528)
|gene="lcr-1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /db_xref="taxon:10090"
/tissue_type="thymus"
/dev_stage="adult"
<1. .98
                                                                                                                                                                                                                                                                                                                                                                                                 661 AGGGGGACATCAGTCAGGGGGATGA 685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /gene="lcr-1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
1. .528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /codon_start=1
/product="CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="mRNA"
/strain="129SV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Z80111.1 GI:1542886
CXCR-4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GERMANY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     D-13122,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lipp, M.
241
                                                     301
                                                                                                             361
                                                                                                                                                                    421
                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MMLCR11
                       셤
                                                  \delta
                                                                         셤
                                                                                                          8 8
                                                                                                                                                           8
                                                                                                                                                                                           g
                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
/protein_id="CAB02201.1"
/db_xref="d1:1542887"
/db_xref="d3:1542887"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-170658"
/db_xref="CAB-17065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AC122097

190149 bp DNA linear HTG 15-NOV-2002
Rattus norvegicus clone CH230-108A24, WORKING DRAFT SEQUENCE, 4
unordered pleces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                i,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 128 AGTGGGGTCTGGAGACTATGACTCCAAGAACCCTGCTTCCGGGATGAAAACGTCCA 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 428 CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              470 CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 (bases 1 to 190149)
Muzny,D.Marie., Metzker,M.Lee., Abramzon,S., Adams,C., Alder,J.,
Allen,C., Allen,H., Alsbrooks,S., Amin,A., Anguiano,D.,
Anyalebechi,V., Aoyadi,A., Ayodeji,M., Baca,E., Baden,H.,
Baldwin,D., Bandaranaike,D., Barber,M., Barnstead,M., Benahmed,F.,
Biswalo,K., Blair,J., Blankenburg,K., Blyth,P., Brown,M.,
Bryant,N., Buhay,C., Burch,P., Burrell,K., Calderon,E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACI22097.4 GI:25008263
HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_FULLTOP.
Actitus norvegicus (Norway rat)
Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           188 TITCAAIAGGAICTICCTGCCCACCATCTACTICATCATCTICTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        248 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14 GCAGGTAGCAGGAGCCCTCTGAGGCGTTGGGGCTCGGGTAACCACCACCACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            74 GAGTGTTGCCATGGAACCGATC----AGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               308 GraceGecrecaccrereaeredecreaerecrecicirinereareaeaerecerreredee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                368 AGTIGATGCCATGGCTGACTTTGGGAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            350 GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           410 AGTIGALGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 10; Length 528;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     530 CCTCGCCATTGTCCACGCCACCAACAGTCAAAGGCCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           488 CCTCGCCATTGTCCACGCCACCAACAGCTCAAAGGCCCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ch 72.4%; Score 495.8; DB 10
11 Similarity 98.5%; Pred. No. 5.6e-120;
513; Conservative 0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rattus.
1 (bases 1 to 190149)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
Matches 513; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
AC122097
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                    exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
```

Cardenas, V., Carter, K., Cavazos, I., Ceasar, H., Center, A., Chen, Z., Chavaz, D., Chavaz, D., Chardenas, V., Carter, Y., Chen, Z., Chen, Z., Cleveland, C., Cockrell, R., Cox, C., Coyle, M., Cree, A., D., Davial, D., Davial, M., Cree, A., D., Davis, C., Davy-Carroll, L., De Anda, C., Dederich, D., Desgado, O., Denson, S., Dermo, C., Ding, Y., Dinh, H., Davis, E., Pan, C., Eggan, A., Sacotto, M., Eugen, C., Evans, C.A., Tells, T., Pan, C., Pariandez, S., Finley, M., Flagg, N., Forbes, L., Poster, M., Ferrandez, S., Finley, M., Flagg, M., Forbes, L., Poster, M., Gebregeorgis, B., Gebris, K., Gill, R., Garcia, A., Garnera, M., Gebregeorgis, B., Gebris, K., Gill, R., Gracia, M., Gebregeorgis, B., Gebris, K., Gill, R., Gracia, M., Gebregeorgis, B., Gebris, M., Hamil, C., Hamilton, C., Hamilton, K., Havlak, P., Hawes, A., Hlanderson, M., Hernandez, M., Havlak, P., Hawes, A., Handerson, B., Johnson, R., Jolivet, M., Sarpehly, S., Kelly, S., Kelly, S., Kelly, S., Kelly, S., Kelly, S., Kelly, S., Kelly, S., Kelly, S., Kelly, S., King, L., Kovar, C., Kovar, C., Liu, M., Liu, Y., London, P., Longon, B., Johnson, R., Mangum, A., Manden, M., Manthey, S., McLeod, M. P., Martin, R., Matthe, S., Lopez, J., Mander, M., Martin, R., Mayur, P., Martin, R., Mayur, P., Martin, R., Mayur, P., Martin, R., Mayur, P., Martin, R., Mayur, P., Martin, R., Mayur, P., Martin, R., Mayur, P., Martin, R., Mayur, P., Martin, R., Mayur, P., Martin, R., Mayur, P., Martin, R., Mayur, P., Martin, R., Mayur, P., Martin, R., Mayur, P., Martin, R., Mayur, P., Martin, R., Reeves, K., Regier, M., K., Parez, A., Parez, L., Pfann, S., Shen, H., Parez, A., Parez, L., Pfann, R., Sarish, R., Shet, H., Shet, H., Shet, R., Shet, H., Shet, R., Shet, M., Shet, H., Shet, R., Shet, R., Shet, R., Shet, M., Shet, M., Shet, R., Shet, M., Shet, R., Shet, M., Shet, R., Shet, R., Shet, M., Shet, R., Shet, R., Shet, R., Shet, R., Shet, R., Shet, M., Walse, R., Walse, R., Walse, R., Walse, R., Walse, R., Walse, R., Walse, R., Walse, R., Walse, R., Walse, R., Walse, R., W

Inpublished

TITLE JOURNAL REFERENCE

2 (bases 1 to 190149) Worley, K.C.

Direct Submission
Submitted (22-MAY-2002) Human Genome Sequencing Center, Department
Submitted (22-MAY-2002) Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
3 (Dases 1 to 190149)
Rat Genome Sequencing Consortium. AUTHORS TITLE JOURNAL

REFERENCE AUTHORS TITLE JOURNAL

COMMENT

Direct Submission

Submitted (15-NOV-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Nov 15, 2002 this sequence version replaced gi:23269619.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence contigs within a contig-scaffold had consist entirely of whole genome shotgun sequence reads. Both end sequence contigs within a contig-scaffold secure and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequence in the feature and sequence and sequence and sequence and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads and whole genome shotgun sequence reads and whole genome shotgun sequence reads and whole sequences and whole sequences and whole sequences are the sequence reads and sequence and sequence and sequence and sequence and sequence and sequence and sequence and sequence and sequence and sequence and sequence and sequence and sequence and sequence and sequence and sequence and sequence and sequence and sequence and sequence an

nter: Baylor College of Medicine Center: Baylor Co Center code: BCM

20879 20640 CCTGTCCCTGTTTCTTTTGCAGATATACACTTCGGATAACTACTGGAAGAAGAAGTAGGGTC 20699 20700 TGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGAAAACTTCAACAG 20759 20939 data.html). 298 478 178 418 Assembly program: Phrasi version 0.990329
Assembly program: Phrasy, version 0.990329
Consensus quality: 179135 bases at least Q40
Consensus quality: 181484 bases at least Q30
Consensus quality: 183011 bases at least Q30
Estimated insert size: 183011 bases at least Q30
Stimated insert size: 187321; sum-of-contigs estimation
Quality coverage: 7x in Q20 bases; sum-of-contigs estimation 20880 GCACCTGTCCGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTGGACGC 119 CATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGAGTGGGGTC 239 GATCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATT 299 GGTGATCCTGGTCATGGGTTACCAGAAGCTAAGGAGCATGACGGACAAGTACCGGCT 479 CAACCICIACAGCAGCGIICICAICCIGGCCIICAICAGCCIGGACCGGIACCICGCCAI 179 TGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAG 359 GCACCTGTCAGTGGCTGACCTCCTTTTGTCACCACTCCCCTTCTGGGCAGTTGATGC 419 CATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGT 20940 cargocroacrogractringgaaarrirrangraaggcrorocararcarcacor 21000 CAACCTTACAGCAGTGTTCTCATCCTGGCCTTCATCAGCCTGGACCGCTACCTTGCCAT NOTE: Bstimated insert size may differ from sequence length (see http://www.hgsc.bom.tmc.edu/docs/denbank draft data.h NOTE: This is a varking draft' sequence. It currently consists of 4 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented arbitrary. Gaps between the contigs are represented arbitrary Gaps between the contigs are represented as soon as it is available and the accession number will be preserved. Length 190149; · 0 40067: contig of 40067 bp in length 40068 40167: gap of unknown length 40168 114660: contig of 74493 bp in length 114661 114760: gap of unknown length 114761 188186: contig of 73426 bp in length 188187 188286: gap of unknown length 188287 190149: contig of 1863 bp in length. Location/Qualifiers Indels 69.1%; Score 473.4; DB 2; 90.8%; Pred. No. 6.3e-114; cive 0; Mismatches 51; /organism="Rattus norvegicus" /mol type="genomic DNA" /db\_xref="taxon:10116" /clone="CH230-108A24" Center clone name: CH230-108A24 Contact: hgsc-help@bcm.tmc.edu ------ Project Information Center project name: GXCR Query Match
Best Local Similarity 90.8
Matches 504; Conservative source FEATURES ORIGIN g ઠે B 8 셤 8 셤 ò g g ò ઠે

```
U90610
U90610.1 GI:1906612
                                                       316
                                                                                     182
                                                                                                                                                                                                                                      496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 15
RNU90610
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FATURES
                                                                              g
                                                                                                               ò
                                                                                                                                       g
                                                                                                                                                                     Š
                                                                                                                                                                                                   g
                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                             dd
                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                  g
8 8
                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .1050
| Jene="Cxcr4"|
| Jene="Cxcr4"|
| Jene="Cxcr4"|
| Jene="chemokine receptor CXCR4"|
| Jerotein id="AAL47855.1"|
| Jerotein id="AAL47855.1"|
| Jerotein id="MaYA7855.1"|
| Jerotein id="MaYA785780YSEVGSGDYDSNKEPCFRDENENFRIFLPTIYFI |
| Firdslation="MEIYTSDNY SEVGSGDYDSNKEPCFRDENENFRIFLPTIYFI |
| FIRTGIVGNGIVILVWOYGXKIRSMYDKYRLHISVADLLFVITLPPWAADAADAYFG |
| KFLCKAVHIIYTUNIYSSVILLAFISLDRYLAINYARDREGHILHGVINGCREFESV |
| ALLITIPDIIFACHSQOGNGRYLATTORIVENENGHINGCHILHGVINGCREFESV |
| SKLGHSKGGRGRALAFILLAFFACHTILLAFFACHLESVYNGSTDSFILLEVIKGGGEFESV |
| SSVSTESESSSFHSS |
ö
                                                                                                                                                             AF452185
Status norvegicus strain Holtzman chemokine receptor CXCR4 (Cxcr4)
Gene, complete cds.
AF452185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Simen, A.A. and Miller, R.J.
Simen, A.A. and Miller, R.J.
Simen, A.A. and Miller, R.J.
Simen, A.A. and Miller, R.J.
Simen, A.A. and Miller, R.J.
Simen, A.A. and Miller, R.J.
Submitted (25-NOW-2001) Dept. Psychiatry, Yale University, New Haven, CT 06508, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           136 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCA 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                    Rattus norvegicus
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          429. .430
/gene="Cxcr4"
/note="compared to Wistar strain sequence presented in
GenBank Accession Number U90610"
/replace="cg"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 TGGAAATATACACTTCGGATAACTACTCCGAAGAAGTAGGGTCTGGAGACTATGACTACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 69.0%; Score 472.4; DB 10; Length 1050; Best Local Similarity 92.4%; Pred. No. 8.9e-114; Matches 497; Conservative 0; Mismatches 41; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .1050
/organism="Rattus norvegicus"
/mol_type="mRNA"
/strain="Holtsman"
/db_xref="taxon:10116"
/sex="female"
/tissue_type="whole brain"
                                                                                                                                                                                                                                                    Rattus norvegicus (Norway rat)
                                                                                                                                                                                                                      AF452185.1 GI:17902280
                                                                                     21180 ccadddddacddda 21194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene="Cxcr4"
                                                          659 CCAGGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                 Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               variation
                                                                                                                                 RESULT 14
AF452185
LOCUS
DEFINITION
                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
REFERNCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
 à
                         g
                                                       ઠે
```

```
1. .1050
| organism="Rattus norvegicus"
| organism="Rattus norvegicus"
| wol_type="mRNA"
| strain="Wistar"
| db xref="taxon:10116"
| tissue_type="spleen"
| . .1050
| . .1050
| . .1050
| organism="CKCR4"
| ordan="CXCR4"
| ordan="CxCR4"
| ordan="CxCCA"
| ordan="Street"
| fproduct="CxC chemokine receptor"
| footon start="I product="CxC chemokine receptor"
| franslation="METYSDNYSEEVGSGDYDSNKEPCFRDENENFNRIFLPTIYFI
| franslation="METYSDNYSEEVGSGDYDSNKEPCFRDENENFNRIFLPTIYFI
| franslation="METYSDNYSEEVGSGDYDSNKEPCFRDENENFNRIFLPTIYFI
| franslation="METYSDNYSEEVGSGDYDSNKEPCFRDENENFNRIFLPTIYFI
| franslation="METYSONILLAFTSLDRYLADTNSQSRKLLABKAVYGWNIP
| ALLLITIPDIIFADDSLABKALLABKAVYGWNIP
| ALLLITIPDIIFADDSLABKALLABKAVYGWNIP
| ALLLITIPDIIFADDSLABKALLABKAVYGWNIP
| ALLLITIPDIIFADDSLABKALLABKAVYGWNIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RNU90610 1050 bp mRNA linear ROD 26-MAR-1997 Rattus norvegicus CXC chemokine receptor (CXCR4) mRNA, complete
                                                                                                                          GTTACCAGAAGAAGAAGAGGATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTG 375
                                                                                                                                                                                                                                                               435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              556 GTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAG 615
                                                                                                                                                                                                                                                                                                                                                                                              436 TIGGGAAATITITGIGIAAGGCIGICCAIAICATCIACACTGICAACCICTACAGCAGCG 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 1050)
Harrison,J.K. and Salafranca,M.N.
Molecular cloning of rat CXCR4
Unpublished
2 (bases 1 to 1050)
Harrison,J.K. and Salafranca,M.N.
Direct Submission
Submitted (25-FBB-1997) Pharmacology and Therapeutics, University of Florida, 1600 SW Archer Rd., Gainesville, FL 32610-0267, USA
                                                                                                                                                                                                                                                                                                          242 ACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTGGACGCCATGGCTGACTGCTACT 301
                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rattus norvegicus (Norway rat)
Rattus norvegicus
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               616 CCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGGCGAGGGGACATCAG 673
482 CCCTCCTCCTGACTATCCTGACATCATCGCGGATGTCAGCCAGGGGACGCCAG 539
TCTACTTCATCATCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG
                                   122 TCTATTTTATCATCTTCTTGACTGGCATAGTGGGCAATGGGTTGGTAATCCTGGTCAGG
                                                                                                                                                                                                                                                               376 ACCICCICITIGICALCACACICCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACT
```

```
VHKWISITEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGH
SSVSTESESSSFHSS"
                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                  195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             316 GTTACCAGAAGAAGCTAAGGAGCATGACGGCAAGTACCGGCTGCACTGTCAGTGGCTG 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      376 ACCITCITITGICATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGGTACT 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         436 TIGGGAAATITITGIGIAAGGCIGICCATATCATCIACACTGICAACCICTACAGCAGCG 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   496 TICICATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACA 555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              556 GTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAG 615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       422 GCCAGAGGAGGAAGCTGCTGAAAAAGGCCGTCTATGTGGGTGTCTGGATCCCCG 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62 ACAAGGAACCCTGCTTCCGGGATGAAAACGAAAACTTCAACAGGATCTTCCTGCCCACCA 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256 TCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          242 ACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTGGACGCCATGGCTGACTGGTACT 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           302 TIGGGAAATITITIAIGIAAGGCIGIGATAICAICTACCACCGICAACCTIAAAGCAGIG 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCGGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCTCCTCCTGACTATCCCTGACATCTTCGCCGATGTCAGCCAGGGGACGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                       136 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 régazararacacrircegarascracricegagasagascressimos de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucción de la reconstrucc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     196 ACAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACA
                                                                                                                                                                                                                                                                                                                0; Gaps
                                                                                                                                                                                                         Query Match 68.5%; Score 469.2; DB 10; Length 1050; Best Local Similarity 92.0%; Pred. No. 6.3e-113; Matches 495; Conservative 0; Mismatches 43; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       482
                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \dot{\delta}
```

Search completed: May 17, 2004, 12:10:47 Job time: 2772.88 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

- nucleic search, using sw model OM nucleic

Run on:

May 17, 2004, 03:46:58 ; Search time 293.749 Seconds (without alignments) 9906.453 Million cell updates/sec

Title: Perfect score: Sequence:

US-09-367-052-5 685 1 ccatcctaatacgactcact......gacatcagtcaggggatga 685

Scoring table:

3373863 segs, 2124099041 residues IDENTITY\_NUC Gapop 10.0 , Gapext 1.0 Searched:

hits satisfying chosen parameters:

ğ

Total number

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

N Geneseq 29Jan04:\* 1: geneseqn1980s:\* Database :

genesequ1980s:\* genesequ1990s:\* genesequ2000s:\* genesequ2001bs:\* genesequ2001bs:\* genesequ2002s:\* geneseqn2003bs:\* geneseqn2003cs:\* geneseqn2004s: 9: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Description	Aav46370 Nucleic a	Aaz27611 Mouse CXC	Adb58421 Toxicity-	Adb53005 Primary r	Aad12801 Human neu	Aai65467 Nucleotid	Abs53992 DNA encod	Abs53750 DNA encod	Abv78039 Hypoxia-r	Abx08779 Angiogene		Abz68886 Nucleotid	Abz42642 Human CXC	Adc98645 Human CXC	Abz35348 Human gen	Adb47320 Human cDN	Aaa61656 Human CXC	Aaz40014 CXCR4 cod	Aag29506 New plate	Aag80521 Human mon	Aag99007 Chemokine	Abk83803 Human cDN	Abn95645 Gene #214
	Desc	Aav4	Aazz	Sqp4	Adbs	Aad1	Aai6	28dA	Abs5	Abv7	Abx0	Px4	9PZ	Abz4	Ados	Abz3	Adb4	Aaa6	Aaz4	Aag2	Aage	Aags	Abk	Abns
	н	AAV46370	AAZ27611	9 ADB58421	9 ADB53005	AAD12801	AAI65467	. ABS53992	ABS53750	ABV78039	ABX08779	ABX74454	ABZ68886	ABZ42642	3 ADC98645		9 ADB47320	AAA61656	AAZ40014	2 AAQ29506	2 AAQ80521	2 AAQ99007	3 ABK83803	ABN95645
	Length DB	1877	1758 2	1050	1050	1679 4	1679 4	1679 6	1679 6	1679 6	1679 7	1679	1679	1679	1679	1711 (		1664	•	•	•	1737	_	1670 €
de	Query Match	100.0	82.6	68.5	68.5	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.1	65.1	64.1	64.1	64.1	63.9	63.9
	Score	685	566	469.2	469.2	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	445.8	445.8	439.2	439.2	439.2	437.6	437.6
	Result No.		7	m	4	Ŋ	ø	7	œ	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23

Human Chemok Chemok Human Chemok Human Human Human Human Human Human Human Human Human Human Human Human	Aaf20896 Human CCR Aah99951 CXCR4 gen Ab296590 Human CCR Aca64841 Human CXC Abs64793 CXCR4 rec
ACC46765 ACA64750 AAZ38553 AB197982 AABQ74938 AAK98241 AAZ37610 ACC72707 AAC72707 AAC72707 AAC72707 AAC72707 AAC72707 AAC72707 AAC72707 AAC72707 AAC72707 AAC72707	AAF20896 AAH99951 ABZ96590 ACA64841 ABS64793
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	01103
0.000000000000000000000000000000000000	5161 5161 5161 5161 1582
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
444444444444 644444444444 6486666666666	428 428 428 428 427.6
4 11 4 12 4 13 4 13 4 13 4 13 4 13 4 13	4 4 4 4 4 4 4 4 4 4 1 4 6 4 6

### ALIGNMENTS

Mouse; CXC chemokine receptor; pre-B cell line DW34; CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1; HIV infection; screening; inhibitor; AIDS; ds. Nucleic acid encoding a murine CXC chemokine receptor. 99 AAV46370 standard; cDNA to mRNA; 1877 20-NOV-1998 (first entry) AAV46370; Mus sp. AAV46370 

Location/Qualifiers 120. .1199 /\*tag= a

WO9835035-A1 13-AUG-1998.

97WO-JP000299. 97WO-JP000299 07-FEB-1997; 07-FEB-1997;

Tachibana K, Iizasa H, Kishimoto T, Nagasawa T, Nakajima T, Yoshie O; (SHIO ) SHIONOGI & CO LID WPI; 1998-447232/38. P-PSDB; AAW64778.

ż

Yoshida

Mouse CXC chemokine receptor binding to PBSF/SDF-1 pre-B cell stimulatory factor - is useful for screening of potential HIV infection and AIDS inhibitors.

Claim 3; Page 39-42; 76pp; Japanese.

The present sequence encodes a murine CXC chemokine receptor which binds to the mouse CXC chemokine pre-B cell stimulatory factor PBSFS0BF-1. The nucleic acid is isolated from mouse pre-B cell line DW34. The receptor and cells expressing it can be used in the study and mapping of the

```
ö
                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                   120
                                                                                                                                                                                                                120
                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                999
                                                                                                                                                        9
                                                                                                                              9
                                                                                                                                                                                                                                                                                                                   421 TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601 GCGTCTGGATCCCAGCCTCCTCCTGACTAACCTGACTTCATCTTTGCCGACGTCAGCC
                                                                                                                             1 CCATCCTAATACGACTCACTATAGGGCTCGAGCGGCCGCCCGGGCAGGTGCAGGTAGCAG
                                                                                                                                             1 CCATCCTAATACGACTCACTATAGGGCTCGAGCGGCCGCCCGGGCAGGTGCAGGAGG
                                                                                                                                                                                     TGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACGGCTGTAGAGCGAGTGTTGCCA
                                                                                                                                                                                                    61 TGACCTCTGAGGCGTTTGGTGCTCCGGTAACCACGCTGTAGAGCGAGTGTTGCCA
                                                                                                                                                                                                                                           TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTG
                                                                                                                                                                                                                                                                     121 TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAGTGGGGTCTG
                                                                                                                                                                                                                                                                                                                                                         TCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGGCAATGGATTGG
                                                                                                                                                                                                                                                                                                                                                                           TCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                 TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                           TGATCTTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 accretchedededederecretrinerearcacacrecerredededengardede
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCTUTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Accretacadedacetrecreteceresecricareaceresecreteceresecrete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGTCTGGATCCCAGCCCTCCTCACTATACCTGACTTCATCTTTGCCGACGTCAGCC
                                                                                                                                                                                                                                                                                                 GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                                                                                  Gaps
 mechanism of HIV infection and in screening of potential inhibitors HIV infection and the development of AIDS
                                                                                                ;
0
                                                                      2; Length 1877;
                                        Sequence 1877 BP; 469 A; 451 C; 406 G; 551 T; 0 U; 0 Other;
                                                                     Query Match 100.0%; Score 685; DB 2; Length 1
Best Local Similarity 100.0%; Pred. No. 5.8e-191;
Matches 685; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661 AGGGGGACATCAGTCAGGGGGGATGA 685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGGGGACATCAGTCAGGGGGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     199
8558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                               a
                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                     8 &
                                                                                                                                                                                                                                                                                                                                                                           g S
                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                  ò
                                                                                                                                                                                                       g
                                                                                                                                                                                                                                ∂
                                                                                                                                                                                                                                                                                        \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

239 120 299 180 359 240 419 479 360 539 420 599 480 300 GGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGC 659 9 GGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGG 120 ATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCT 1 AridGAACCGATCAGTGTGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCT GGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGG 240 ATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGGCAATGGATTG 121 ATCTICCTGCCCACCACCATCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTG 181 Gréarcrégreargégraaccagaagerraagaageargaccagacaagraccegere 241 CACCTGTCAGTGGCTGACTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCC ATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACTACTGTC GTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTG CACCIGICAGIGGCIGACCICCICITIGICAICACACICCCCITICIGGCAGITGAIGCC **ATGGCTGACTGGTACTTTGGGAAATTTTTTGTGTAAGGCTGTCCATATCATCTACACTGTC** 361 AACCICTACAGCAGCGTTCTCATCCTGGCCTTCACCAGCCTGGACCGGTACCTCGCATT AACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATT Gaps . 0 Length 1758; 0; Indels 82.6%; Score 566; DB 2; Le 100.0%; Pred. No. 6.2e-156; Artive 0; Mismatches 0; 566; Conservative Local Similarity Query Match Best Local S: 180 61 300 360 420 301 480 540 421 009 Matches 셤 ઠે 셤 ઠે 음 ઠે 임 ò 8 Q õ g 8 ద  $\dot{\delta}$ 셤 ઠે

CXCR4; mouse; neovascularisation; inhibitor; tissue repairing agent; vascularisation; ss.

```
This sequence encodes the mouse CXCR4 protein. The invention relates to remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockout mouse, it becomes possible to prepare remedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of gotontiating CXCR4. It is also possible to establish methods for treatment with the use of these remedies
                                                                                                                                                                                                                                                                                                         CXCR4-potentiating agents and methods useful for inhibiting neovascularization, and treating solid cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1758 BP; 447 A; 414 C; 369 G; 528 T; 0 U; 0 Other;
                                                                                                                                                                                                             ĸ
                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 50-51; 63pp; Japanese.
                                                                                                                                                                                                               Tachibana
                                                                             99WO-JP001448.
                                                                                                                98JP-00095448
                                                                                                                                                                                                             Kishimoto T, Nagasawa T,
                                                                                                                                                  (CHUS ) CHUGAI SEIYAKU (KISH/) KISHIMOTO T.
                                                                                                                                                                                                                                                  WPI; 1999-591042/50
                                                                                                                                                                                                                                                                    P-PSDB; AAY39994
                                                                             23-MAR-1999;
                                                                                                                24-MAR-1998;
WO9948528-A1
                                      30-SEP-1999
  solid cancer; therapy;
```

Predicting a toxic effect of a compound, useful in identifying toxicity markers in liver tissues or cells for drug screening and toxicity assays, comprises preparing gene expression profile of tissue or cells exposed to the compound. 481 GGCGTCTGGATCCCACCCTCCTCCTCTATACCTGACTTCATCTTTGCCGACGTCAGC 540 Elashoff Toxic; toxin; gene expression profile; hepatotoxicity; liver; drug screening; toxicity assay; ds. Castle A, Mendrick D, Porter M, Johnson K, Higgs B, Claim 1; SEQ ID NO 3447; 1156pp; English 685 541 CAGGGGACATCAGTCAGGGGGATGA 566 660 CAGGGGGACATCAGTCAGGGGGGATGA Toxicity-related gene, SEQ ID 3447 ADB58421 standard; DNA; 1050 BP ; 2002US-00060087. ; 2002US-0364045P. ; 2002US-0364055P. ; 2002US-0436643P. 31-JAN-2003; 2003WO-US003194 (first entry) (GENE-) GENE LOGIC INC. WPI; 2003-689530/65 WO2003064624-A2 31-JAN-2002; 15-MAR-2002; 15-MAR-2002; 30-DEC-2002; 04-DEC-2003 37-AUG-2003 ADBS8421
ADBS8421
ADBS8421
ADBS8421
ADBS8421
ADBS8421
ADBS8421
ADBS8421
ADBS8421
ADBS8421
ADBS8421
ADBS8421
ADBS8421
ADBS8421
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84
ADS84 용 8

The present invention relates to a method for predicting a toxic effect of a compound. The method comprises preparing a gene expression profile of a tissue or cell sample exposed to the compound, and comparing the gene expression profile to a database comprising SEQ ID 1-4925, where differential expression of the gene indicates at least one toxic effect. The method is useful for predicting at least one toxic effect of compound, predicting the profit or the progression of a toxic effect. The compound, identifying an agent that modulates the onset or progression of a toxic response, predicting the cellular pathways that a compound modulates in a cell, and identifying an agent that modulates at compound modulates in a cell, and identifying an agent that modulates at compound using a database of genes having liver toxin-induced differential expression, are useful in identifying toxicity markers in liver tissues or cells for drug screening and toxicity assays. Note: The sequence date for this patent did not form part of the printed specification, but was obtained in electronic formet directly from WIPO at fip. WIPO: int/pub/published\_pct\_sequences.

Sequence 1050 BP; 231 A; 313 C; 247 G; 259 T; 0 U; 0 Other;

Query Match 68.5%; Score 469.2; DB 9; Length 1050; Best Local Similarity 92.0%; Pred. No. 1.6e-127; Matches 495; Conservative 0; Mismatches 43; Indels 0;

136 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCA 195

ö

Gaps

ô

435 555 GICAAAGGCCAAGAAACIIGCIIGAAAAGGCAGICIAIGIGGGGGGTCIGGAICCCAG 615 181 375 241 301 495 302 TIGGGAAATITITAIGIAAGCTGTGCATATCATCTACACCGTCAACCTTTACAGCAGTG 361 GCCAGAGCGCGAGGAAGCTGCTGAAAAAGGCCGTCTATGTGGGTGTCTGGATCCCCG 481 121 diagnostic marker; Primary rat hepatocyte toxicity modelling related gene SEQ ID NO:3547. TGGAAATATACACTTCGGATAACTACTCCGAAGAAGTAGGGTCTGGAGACTATGACTCCA GTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTG TTGGGAAATTTTTGTGTAAGGCTGTCCATATCTACACTGTCAACCTCTACAGCG TTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACGACA ACAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCA TCTACTTCATCATCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG 376 ACCICCICITIGICALCACICCCTICIGGGCAGITGALGCCALGGCTGALTACT toxic effect, gene expression profile; hepatotoxicity, toxicity marker; toxicity progression; drug screening; primary rat hepatocyte toxicity modelling; gene; ds. ВР 04-FEB-2002; 2002US-0353171P.
13-MAX-2002; 2002US-0363534P.
10-APR-2002; 2002US-0371134P.
10-APR-2002; 2002US-0371134P.
11-APR-2002; 2002US-0371135P.
11-APR-2002; 2002US-0371143P.
11-APR-2002; 2002US-0371413P.
19-APR-2002; 2002US-0373601P.
22-APR-2002; 2002US-0373602P.
22-APR-2002; 2002US-0373602P.
09-MAY-2002; 2002US-0373602P.
09-MAY-2002; 2002US-0378652P. ; 2002US-0378653P. ; 2002US-0378665P. ; 2002US-0394230P. ; 2002US-0394253P. ADB53005 standard; DNA; 1050 04-FEB-2003; 2003WO-US003482. 04-DEC-2003 (first entry) Rattus norvegicus WO2003065993-A2. 09-MAY-2002; 09-JUL-2002; 09-JUL-2002; 14-AUG-2003 ADB53005; 556 316 182 496 196 436 556 422 RESULT 4 ADB53005 셤 Š g ద 셤 à 요 ઠે g 셤 ò ઠ ò à õ

61

7

à

2002US-0407688P LOGIC INC 04-SEP-2002; 28-JAN-2003; (GENE-) GENE mean values. Mendrick D, Elashoff M; 

Determining if a compound induces a toxic effect on a tissue or cell, for identifying hepatotoxic compounds, comprises comparing a gene expression profile of a tissue or cell sample to a database of Tox mean and non-Tox Castle A, m K, Higgs Claim 44; SEQ ID NO 3547; 874pp; English Johnson Porter M, WPI; 2003-731472/69.

AAD12801 standard; DNA; 1679 BP

RESULT 5

Orr M;

The present invention describes a method for determining whether a compound induces a toxic effect on a tissue or cell. The method comprises preparing a gene expression profile of a tissue or cell sample exposed to the compound, and comparing the gene expression profile to a database comprising data or information on the Tox mean and non-Tox mean value. The method is useful for predicting or identifying at least one toxic effect, particularly hepatocoxicity, of a test or unknown compound. The genes listed in the specification are useful as diagnostic or toxicity markers for the prediction or identification of the physiological state of tissue or cell sample that has been exposed to a compound, or to identify or predict the toxic effects of a compound or an agent. These may also be used as markers for monitoring toxicity progression or for drug screening. The present sequence represents a primary rat hepatocyte toxicity modelling related gene sequence from the present invention.

Sequence 1050 BP; 231 A; 313 C; 247 G; 259 T; 0 U; 0 Other;

ô 255 315 121 181 375 241 ACCICCICITIGICATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACT 435 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCA 195 accrecirciringrearcacacicecrirerggecagiggacgecargecrasergaciggraci 301 TIGGGAAATITITIGIGIAAGGCIGICCAIAICAICIACACCIGICAACCICIACAGCAGCG 495 TTGGGAAATTTTTATGTAAGGCTGTGCATATCATCTACACCGTCAACCTTTACAGCAGTG 361 TTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACA 555 TICTCATCCTGGCCTTCATCAGCCTGGACCGCTACCTTGCCATTGTCCACGCCACCAACA 421 GTCAAAGGCCAAGGAAACTGCTGGTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAG 615 eccadadececeadadadecrecrecreadadadececercrarerecereredareceed 481 61 CCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCCAGGGGACATCAG 673 GTTACCAGAAGAAGCTGAGGAGCATGACAAGAAGTACCGGCTGCACCTGTCCGTGCTG ACAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCA Acaadgaaccridcrirccggargaaacgaaaacrircaacaggarcrirccrgcccacca 122 rerartrarcarcrierreacrescarastesecarescarescriestrarecresicares GTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTG 0; Gaps CCCTCCTCACTATCCCTGACATCATCTTCGCCGATGTCAGCCAGGGGAAGGCAAG 68.5%; Score 469.2; DB 9; Length 1050; 92.0%; Pred. No. 1.6e-127; ive 0; Mismatches 43; Indels 0; Best Local Similarity 92.0 Matches 495; Conservative 136 N 196 62 256 182 376 242 436 302 496 362 422 316 556 919 Query Match ద à 요 à g ઠે 셤 g ò g ઠે ద 엄 ò  $\delta$ ઠ ò

103

71

```
The present invention relates to a method for treatment or prevention of bone diseases characterised by loss of bone mass, comprises administering to a mammal a compound that lowers the level of neuropeptide Y (NPY) in the serum or cerebrospinal fluid (CSF) or a compound that lowers the level of inositol phosphate (IP) or extracellular signal-regulated kinase (ERK). The method is specifically used to treat (including by gene therapy) or prevent osteoporossis, osteopenia or Paget's disease, but may also be used e.g., in cases of fractures or bone metastases. These diseases may also be diagnosed by detecting elevated NPY levels, including monitoring of treatment, assessing efficacy of compounds in sequence is a human NPY % receptor DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12 ececcaecadearaccaadeacceadeaccricadrectecadraccaccacceerere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Treating or preventing reduced bone mass, e.g. osteoporosis, by reduce the level of neuropeptide Y activity in blood or cerebrospinal fluid
                                                                                                             Human; neuropeptide Y; NPY; bone disease; bone mass; gene therapy; cerebrospinal fluid; CSF; inositol phosphate; IP; Paget's disease; fracture; extracellular signal-regulated kinase; ERK; osteoporosis; osteopenia; bone metastasis; neurotransmitter; osteogenic; NPY Y3 receptor; ds.
                                                                                                                                                                                                                                                                                                /*tag= a
/product= "Human neuropeptide Y (NPY) Y3 receptor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ري
د
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 446.8; DB 4; Length
Pred. No. 7.7e-121;
0; Mismatches 102; Indels
                                                                                          Human neuropeptide Y (NPY) Y3 receptor DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 7; Page 84-85; 102pp; English.
                                                                                                                                                                                                                                                           Location/Qualifiers
89. .1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (BAYU ) BAYLOR COLLEGE MEDICINE (AMLI/) AMLING M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ducy
                                                                                                                                                                                                                                                                                                                                                                                                                 22-JAN-2001; 2001WO-US002040.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65.2%;
83.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                               20-JAN-2000; 2000US-00489872.
                                                             16-OCT-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 83.0
Matches 523; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Amling M, Karsenty G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-488709/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P-PSDB; AAE06690
                                                                                                                                                                                                                                                                                                                                                 WO200153477-A1
                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                 26-JUL-2001
                              AAD12801;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
```

```
643
223
                                                186
                                                                                                 283
                                                                                                                                                 246
                                                                                                                                                                                                     343
                                                                                                                                                                                                                                                     306
                                                                                                                                                                                                                                                                                                      403
                                                                                                                                                                                                                                                                                                                                                      366
                                                                                                                                                                                                                                                                                                                                                                                                       463
                                                                                                                                                                                                                                                                                                                                                                                                                                                          426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 An antibody for the treatment or prevention of HIV-infection comprises a gpl20 portion which binds to DC-SIGN or is exposed upon gpl20 binding of DC-SIGN due to concomitant conformational change.
                                                                                                                                                                                                                                  247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAACTGAGAAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGCTACCTGCCCTCGTCCACGCCCACCAACAGGAGGCCAAGGAAGCTGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   584 AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGGACTTCAT
TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGAACCCTGCTTCCGGGATGAAAA
                             CGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAAAA
                                                                                                                                                                                                                                                                                                                                   GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTTTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                          CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT
                                                                                                                                                 recraarircaaraaarcriccreeceacearcracreearcarcricriaacreecar
                                                                                                                                                                                                     AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                      GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                     cresecastricarecerescaacrestacririescaacrirecrarecaasecaereca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      receptor; DC-SIGN; dendritic cell; T lymphocyte; HIV; gp120; lectin; ICAM3; HIV entry; T cell; macrophage; HIV infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Geijtenbeek
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nucleotide sequence of a human polynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTTGCCGACGTCAGCCAGGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 126-127; 131pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTTGCCAACGTCAGTGAGGCAGATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Van Kooyk Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAI65467 standard; DNA; 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-FEB-2001; 2001WO-US006322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         32-MAR-2000; 2000US-00517605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (UYNY ) UNIV NEW YORK STATE. (UYNI-) UNIV NIJMEGEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Littman DR, Kwon D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-602565/68.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200164752-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   547
                                                                                                 224
                                                                                                                                                    187
                                                                                                                                                                                                  284
                                                                                                                                                                                                                                                                                                      344
                                                                                                                                                                                                                                                                                                                                                      307
                                                                                                                                                                                                                                                                                                                                                                                                       404
                                                                                                                                                                                                                                                                                                                                                                                                                                                          367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA165467;
164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human;
C-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ANIGORNA CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CONTROLL CON
                                                                                8 6 8 6
                                                                                                                                                                                                                                                                                        8 8 8
                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                          8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

```
366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12 dogocadoladoladoladorados de dos de defectos de describilidados de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de la defenidado de l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    487 CCGCTACCTGGCCATCGTCCACCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  187 IGCTAATTICAATAAAATCTICCIGCCCACCAICTACTCCATCATCTTCTTAACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    284 AGTCGGCAATGGATGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGACGATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  307 GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGGCAGTTGATGCCATGCCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ů,
                                                                                                                                                                                                                                                                                                                                                             Length 1679;
                                                                                                                                                                                                                                                                                                                   Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             encoding human CXC chemokine receptor 4 (CXCR4)
                                                                                                                                                                                                                                                                                                                                                             Ouery Match 65.2%; Score 446.8; DB 4; Best Local Similarity 83.0%; Pred. No. 7.7e-121; Matches 523; Conservative 0; Mismatches 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTTGCCGACGTCAGCCAGGGGGACATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard; cDNA; 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABS53992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABS53992
ID ABS5
XX
AC ABS5
AC ABS5
XX
DT 02-D
XX
DE DNA
88988888888888888888888888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ក្ន
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

The specification describes an antibody which is specific for an antigenic fragment of gp120. This antigenic fragment binds to DC-SIGN or is exposed upon gp120 binding of DC-SIGN due to concomitant conformational change. DC-SIGN is a receptor that is specifically expressed on dendritic cells and facilitates infection of T lymphocytes with HIV. DC-SIGN is identical to a HIV-1 gp120-binding C-type lectin. DC-SIGN binds ICAM-3 (which is expressed constitutively on T lymphocytes) with high affinity. The antibody of the invention inhibits the trans denhancement of HIV entry into a T cell or macrophage facilitated by infection. The present sequence represents a human polynucleotide, which is used in the course of the invention

```
stromal cell-derived factor laipha; angiogenesis, atheroscierosis, restencesis, ischaemic stroke; spinal cord injury; infection, ulcer; human immunodeficiency virus; HIV; acquired immunodeficiency syndrome; AIDS; pain, cancer; benign prostatic hypertrophy, diabetes; obesity; anorexis, bullmai, asthma; Parkinson's disease; acute heart failure; hypotension; hypotension; urinary retention; osteoporosis; stroke, anginal pectoris; myocardial infarction; benign prostatic hypertrophy; migraln; vomiting; psychocic disorder; neurological disorder; anxiety; schizophrenia; dyskinesia; Huntingdon's disease; restencis;; inflammatory disease; rheumatoid arthritis; diabetic retinopathy; inflammatory bowel disease; atthritis; diabetic retinopathy; congestive heart failure; cardiac remodeling; angiogenic disease; solid tumour; Kaposi Sarcoma; human; gene; ss.
            chemokine receptor 4; CXCR4; chemotaxis induction;
                                                                                                                                                                                                                                                                                                                                                                                               (SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                                                                                                                                                                                                     17-SEP-2001; 2001US-00953692
                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-697879/75.
                                                                                                                                                                                                                                                                                                                                                           21-JUL-1998;
21-JUL-1999;
                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                              08-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                       Gupta SK;
```

/note= "CXC chemokine receptor 4"

"CXCR4"

/\*tag= a /product= 89. .1147

Location/Qualifiers

P-PSDB; ABG32977

98US-0093596P. 99US-00358624.

Inducing chemotaxis of endothelial cells, useful for regulating angiogenesis, e.g. for treating cancer, comprises treatment with stromal cell-derived factor 1 alpha.

Disclosure, Fig 1, 26pp, English.

The invention describes a method of inducing chemotaxis of endothelial cells by treatment with stromal cell-derived factor lappa (SDF1a). The method is used for trimulating EC chemotaxis, and thus angiogenesis, and is used for treating atherosclerosis, restenosis, ischaemic stroke and spinal cord injury. Inhibition of this process is useful in treatment and pacteria, fungi, protozoa or viruses such as human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS), pain, cancer and bening prostatic hypertrophy, diabetes, obesity, anorexia, bulimia, asthma, Parkinson's disease, acute heart failure, hypotension, hypertrophy, myoradial infarction, stroke, ulcers, benign prostatic hypertrophy, myoradial infarction, stroke, ulcers, benign prostatic hypertrophy, chizoane, vomiting, psychotic and neurological disorders (e.g. anxiety, schizophrenia) and dyskinesias (e.g. Huntingdon's disease), inflammatory diseases, theumatoid arthitis, diabetic retinopathy inflammatory bowel diseases, theumatoid arthitis, diabetic retinopathy inflammatory bowel heart failure, cardiac remodeling, angiogenic diseases, solid tumours, and access this seases and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and seasons and s receptor 4 (CXCR4) polynucleotide

Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

Gaps . . 65.2%; Score 446.8; DB 6; Length 1679; Ilarity 83.0%; Pred. No. 7.7e-121; Conservative 0; Mismatches 102; Indels 5; Similarity Query Match Best Local Simi: Matches 523; GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGGCTG 103

```
343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chemotaxis; endothelial cell; EC; angiogenesis; atherosclerosis; restenosis; ischaemic stroke; spinal cord injury; infection; bacteria; diugi; protozoa; virus; pain; cancer; benign prostatic bypertroppy; diabetes; obesity; anorexia; bulimia; asthma; allergy; hypertension; parkinson's disease; acute heart failure; hypotension; urinary retention; osteoporosis; angina pectoris; myocardial infarction; stroke; dyskinesia; migraine; vomiting; psychotic disorder; neurological disorder; ulcer; inflammatory disorder; rheumatoid arthritis; diabetic retinopathy; inflammatory bowel disease; atherosclerosis; restenosis; Kaposi sarcoma; Alzheimer: s disease; congestive heart failure; cardiac remodelling; angiogenic disease; solid tumour; human; stromal cell derived factor-la; SDF-lalpha; CXCR4; gene; ds.
                                                                                                                                                                                                                                223
                                                                                                                                                                                                                                                                                                                                                                283
                                                                                                                                                                                                                                                                                                                                                                                                                              246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   909
                                                                                                       163
                                                                                                                                                                                                                                                                                              186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rercarcracacaercaacereracaecaerereereareereereereerearearereea 486
                                         7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           247 rerececardearrecrearecreercarecerraceagaegaacreagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceagaeceaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        584 AAAGGCAGICTAIGIGGGGGTCTGGAICCCAGCCCTCCTCCTGACTAIACCTGACTICAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCGGCAGCAGCAAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                              187 rácraartroaaraaarcrrccraccaccarcracrecarcarcrrcrraacragear
                                                                                                                                                                     72 gagaaccagcogrraccargga-----ggggarcagrararacacrrcagaraacracac
                                                                                                                                                                                                                                                                                    127 cgaggaatigggctcagggggctatgactccatgaaggaaccctgtttccgtgaagaaa
                                                                                                                                                                                                                                                                                                                                                                224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTGTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cresecaerreareccerescanacresracririsesancrirecrarecandedagreea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  487 CCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGA
                                                                                                       104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                       164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGGTACCTCGCCATTGTCCACGCCACCAAGAGTCAAAGGCCAAGGAAACTGCTGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag= a
/product= "Human CXCR4 protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITIGCOGACGICAGCCAGGGGGACAICAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cririeccaacercaeareaeeaaareaeae ese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                encoding human CXCR4 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABS53750 standard; DNA; 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-NOV-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . .1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                         12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABS53750;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABS53750
                                                                                                       ઠે
                                                                                                                                                           임
                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                               \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                යු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
```

US2002107196-A1

17-SEP-2001; 21-JUL-1998; 21-JUL-1999;

08-AUG-2002

98US-0093596P. 99US-00358624. 2001US-00953717

The present invention relates to a new method for inducing chemotaxis of endothelial cells (EC). The method of the invention involves treatment with a strong and cell-derived factor is (SPFialpha). The method is used for the invitating EC chemotaxis, and thus angiogenesis, and is used for treating atherosclerosis, restenosis, ischaemic stroke and spinal cord injury, while inhibition of this process is useful in treatment and prevention of a very wide range of diseases, e.g. infection (by batteria), bypertrophy, diabetes, obesity, anorexia, bullina, asthma, allergies, hypertrophy, diabetes, obesity, anorexia, bullina, asthma, allergies, curnary retention, osteoporosis, angina pectoris, myocardial infarction, trinary retention, osteoporosis, angina pectoris, myocardial infarction, curnary retention, osteoporosis, angina pectoris, myocardial infarction, crom dyskinesias, inflammatory disease, rheumatoid arthritis, diabetic retinopathy, inflammatory bowel disease, atherosclerosis, restenosis, Alzheiner's disease, congestive heart fallure, cardiac remodelling, and perfect and method arthritis, diabetic retinopathy inflammatory bowel disease, atherosclerosis, restenosis, angiogenic diseases, solid tumours, and Kaposi sarcoma. The present condest the human CXCR4 protein of the invention. Inducing chemotaxis of endothelial cells, useful for regulating angiogenesis, e.g. for treating cancer, comprises treatment with stromal cell-derived factor 1 alpha. Disclosure; Fig 1; 26pp; English (SMIK ) SMITHKLINE BEECHAM CORP WPI; 2002-706230/76. P-PSDB; ABG33065. Gupta SK; 

Sequence 1679 BP; 407 A; 399 C; 367 G; 504 T; 0 U; 2 Other;

Gaps 5 Length 1679; Query Match 65.2%; Score 446.8; DB 6; Length Best Local Similarity 83.0%; Pred. No. 7.7e-121; Matches 523; Conservative 0; Mismatches 102; Indels

> 쉱 ઠે g 8 ag ò 쉱 ò ద à

164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 72 GAGAACCAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC

187 IGCTAATTICAATAAAATCTICCIGCCCACCATCTACTCCATCATCTTCTTAACTGGCAT 284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGTAAGGAGCATGAC 224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT

546 643 909 463 426 523 486 583 CGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCAGTGTTGGCTGA 367 CTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA AAAGGCAGTCTAGGGCGTCTGGATCCCAGCCCTCCTCGACTATACCTGACTTCAT 464 TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA 673 636 CTTTGCCAACGTCAGTGAGGCAGATGACAG CITTGCCGACGTCAGCCAGGGGGACATCAG 524 487 584 547 644 607 404 g ద à g ∂ δ 셤 ò g

RESULT

ABV78039 standard; DNA; 1679 BP

ABV78039;

12-NOV-2002 (first entry)

Hypoxia-regulated protein coding sequence #59

Cytostatic; vasotropic; tranquiliser; antiatherosclerotic; gene therapy antiinflammatory; vulnerary; gynecological; ophthalmological; vaccine; hypoxia; tumourigeneeis; angiogeneeis; apoptocis; cancer; ischaemic condition; reperfusion injury; retinopathy; neonatal stress; preeclapmaia; atherosclerosis; inflammatory condition; wound healing; inflammation; erythropoiesis; hair loss; human; gene; ds.

Ношо

WO200246465-A2.

13-JUN-2002

10-DEC-2001; 2001WO-GB005458

08-DEC-2000; 2000GB-00030076. 08-FEB-2001; 2001GB-00003156. 25-OCT-2001; 2001GB-00025666.

(OXFO-) OXFORD BIOMEDICA UK LTD.

Harris RA; Ward NR, Krige D, Kingsman SM, Mundy CR, White J, N Rayner WN;

WPI; 2002-627238/67.

163 126 223 186 283 246 343 306 403 366

Identifying a gene involved in disease for treating hypoxia-regulated conditions, comprises comparing the transcriptome/proteome of two cell types under different conditions and identifying a differentially regulated gene.

Claim 37; Page 378; 538pp; English

ש מ The present invention relates to methods for identifying genes and proteins that are implicated in a specific disease or physiological condition. The method comprises comparing the transcriptome/proteome of a specialised cell type implicated in a disease or condition with that of a second specialised cell type, under two experimental conditions, and identifying a gene that is differentially regulated in the two specialised cell types under experimental conditions, ABV7816 and ABP65051-ABP65257 were identified using the methods of the invention. The coding sequences and proteins are useful for treating a disease in a ABV78039.

ILD ABV78039.

ILD ABV78039.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX ABV7.

XXX

patient, for manufacture of a medicament for treating hypoxia-regulated conditions, and for regulating tumourigenesis, angiogenesis, apoptosis, biological response to hypoxia conditions, or hypoxic-associated pathology in a patient. The coding sequences and proteins are also useful for monitoring the therapeutic treatment of a disease or physiological condition, such as cancer, ischaemic conditions, reperfusion injury, retinopathy, neonatal stress, preeclapmsia, atherosclerosis, inflammatory conditions, wound healing, inflammation, erythropoiesis or hair loss Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other; 888888888888888

Gaps ., ., Score 446.8; DB 6; Length 1679; Pred. No. 7.7e-121; 0; Mismatches 102; Indels 5; Query Match
Best Local Similarity 83.0%;
Matches 523; Conservative C

44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 103 71 decedencia de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra dela contra de la contra de la contra de la contra de la contra de la contra dela contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra dela contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra del contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra

223 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 164

g

ò g à d  $\delta$ 

à g à

셤

cresecaerrearecerescanacrestacrrressancrrecrarecansesacres GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTT CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA 307 ( 367 404

g

g à a ò g

 $\delta$ 

426

523

366 463 486 583 546 643

TGTCATCTACACAGTCAACCTCTACAGCAGTGTTCTTCTTCTTCGGCCTTCATCAGCAGTCTGGA CCGCTACCTGGCCATCGTCCACCACCACAGTCAGAGGGCCAAGGAAGCTGTTGGCTGA TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA 487 427 524 464

AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT CTTTGCCGACGTCAGCCAGGGGGACATCAG 547 584 644

g

ò

à

607 Db

ABX08779

ABX08779 standard; cDNA; 1679

Angiogenesis-associated human polynucleotide sequence #41.

Human; angiogenesis-associated transcript; angiogenesis; angiogenesis-associated disease; cancer; cytostatic; gene therapy; gene; ss RESULT 10
ABXO8779
ID ABXO
XX
AC ABXO
XX
DT 21-J
XX
XX
KW HUMA
KW ABG
KW SS

The present invention relates to methods and compositions for detecting an angiogenesis-associated transcript in a cell in a patient. The method involves contacting a biological sample from the patient with a polymucleotide that selectively hybridises to a sequence at least 80% identical to any of the angiogenesis-associated human polymucleotide sequences given in the specification. These angiogenesis-associated polymucleotide sequences comprise that exhibit changes in expression levels as a function of time in tissue undergoing angiogenesis. The method and the polymucleotide sequences of the invention are useful for diagnosing and treating angiogenesis and angiogenesis-associated diseases e.g. cancer. The polymucleotide sequences are also useful in the gene therapy of such disorders. The majogenesis-associated for therapeutic and prophylactic immunisation. ABX08739-ABX08953 represent angiogenesis-associated for therapeutic and prophylactic immunisation. Detecting angiogenesis-associated transcript in a cell for diagnosing treating cancer by contacting a sample with a polynucleotide that exhibits changes in expression level as a function of time in tissue Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other; ż Example 2; Page 217-218; 291pp; English. Aziz Watson SR, 14-PEB-2001; 2001US-00784356. 22-PEB-2001; 2001US-00791390. 19-APR-2001; 2001US-0285475P. 03-AUG-2001; 2001US-0310025P. 13-NOV-2001; 2001US-0350666P. 29-NOV-2001; 2001US-0334244P. (BOSB-) EOS BIOTECHNOLOGY INC 2002WO-US004915 undergoing angiogenesis Glynne R, 2003-040681/03. P-PSDB; ABU03495 WO200279492-A2 14-FEB-2002; Homo sapiens Murray R, sednences 

103 163 126 223 186 283 246 343 306 71 187 IGCIAATITCAATAAAATCTICCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCAT 247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC 44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGACG 12 ecescascascaractaras de consecuencia de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de con 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 127 CGAGGAAATGGGCTCAGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAA 224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCAT 72 gagaaccadcogranaccanoga-----ogogaarcagranacacracadaraacracac TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC Gaps ŝ 65.2%; Score 446.8; DB 7; Length 1679; 83.0%; Pred. No. 7.7e-121; ative 0; Mismatches 102; Indels 5; al Similarity 83.0 523, Conservative 164 Query Match Local Matches 뭐 ö ď ò 임 ઠે 셤 ઠ

TOO WON TO TO: 04:44 7004

us-09-36/-052-5.rng

expression profiling of tumour and normal tissues. The present sequence represents a human cDNA sequence up-regulated in CC-RCC patients

366 463 426 523 486 583 546 643 909 584 AAAGGCAGTCTAIGIGGGCGTCTGGATCCCAGCCCTCCTCGGACTAIACCTGACTTCAT 547 AAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCTCCTGCTGACTATTCCCGACTTCAT GGACAAGTACAGGCTGCACTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTT 427 IGICALCIACACAGICAACCICIACAGCAGIGICCICAICCIGGCCITCAICAGA GGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCTT CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTTGTGTAAAGCTGTCCA 367 CTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA 464 TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA 607 CTTTGCCAACGTCAGTGAGGCAGATGACAG 636 673 644 CTTTGCCGACGTCAGCCAGGGGACATCAG 307 524 404 요 ò g 8 g 8 å 음 a ŝ ò

品

ABX74454 standard; cDNA; 1679

(first entry) 21-MAR-2003 Human cDNA sequence #26 up-regulated in CC-RCC patients.

Human; microarray; solid surface; immobilised probe; CC-RCC; differential expression profile; aggressive CC-RCC tumour type; olear cell renal carcinoma; gene expression profiling; tumour tissue; gene; ss. 

Homo sapiens

WO200279411-A2

10-OCT-2002

29-MAR-2002; 2002WO-US009576

29-MAR-2001; 2001US-0279411P

(VAND-) VAN ANDEL INST

Takashi M; Teh Haab B, Rhodes D,

WPI; 2003-040679/03.

New microarray, comprising a matrix of cDNA probe from a set of probes immobilized to a solid surface in predetermined order, useful in the prognosis of patients with clear cell renal carcinoma.

Claim 35; Page 132-133; 179pp; English.

The present invention relates to a microarray comprising a matrix of at least one cDNA probe from a set of probes immobilised to a solid surface in a predetermined order, where a row of pixels corresponds to replicates of one distinct probe from the set. The probes are complementary to mucleic acid sequences that are expressed differentially in aggressive as compared to non-aggressive types of clear cell reach carcinoma (CC-RCC) and that hybridise to the probes under high stringency conditions. The microarray is useful for the prognosis of patients with CC-RCC, wherein aggressive and non-aggressive CC-RCC tumour types are characterised by differential expression profiles of genes that hybridise with one or more probes immobilised on the microarray. The arrays are useful for gene

1; 126 186 283 426 44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 103 163 223 306 403 366 463 523 486 583 546 643 909 71 72 gagaaccagcggtraccargga-----ggggarcagrararacacricagaraacracac 127 CGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAA 307 GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTT 12 GCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTG 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 224 CGICCATITCAAIAGGAICTICCIGCCCACCAICTACTICAICAICTICTIGACTGGCAI TGCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTAACTGGCCAT 284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC CIGGGCAGTICATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA cresecastricariscorescanacrestricitadonacritectariscanssecasicon AAAGGIGGICIAIGITIGGCGICIGGAICCCIGCCCCCCCGGCTGACIAITCCCGACTICAI TGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTT TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA 487 ccecraccredecarcercaceccaccaacreacaeccaaeeaccrareacrerreecrea AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT Gaps Human, chemokine receptor, CXCR4; viral infection; surface protein; respiratory virus infection; respiratory syncytial virus infection; RSV infection; bronchiolitis; bronchitis; pneumonia; asthma, gene; 8 5; Length 1679; Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other; Indela Nucleotide seguence of human chemokine receptor CXCR4. Query Match 65.2%; Score 446.8; DB 7; Best Local Similarity 83.0%; Pred. No. 7.7e-121; Matches 523; Conservative 0; Mismatches 102; CTTTGCCAACGTCAGTGAGCAGATGACAG 636 CITIGCCGACGICAGCCAGGGGGACAICAG 673 Location/Qualifiers 89. .1147 /\*tag= a ABZ68886 standard; cDNA; 1679 (first entry) sapiens 28-MAY-2003 547 164 187 344 404 367 464 427 524 584 644 607 ABZ6886; Key ន្តដ្ឋនូ ઠે ద ò ద 셤 ઠે ò g ð g ò 셤 8 g 8 g à g δ 셤 ò 요

us-09-367-052-5.rng

ď The present sequence encodes human chemokine receptor CXCR4. The specification describes a method for modulating viral infection of a cell. the method comprises modulating a binding interaction between a cell chemokine-receptor and a surface protein of the virus. The provise is that the cell chemokine-receptor is not CXICR1 and that the virus is not HIV. The method is useful for treating or preventing respiratory virus infection in vertebrates, more particularly respiratory syncytial virus (RSV) infections, and related diseases, e.g. bronchiolitis, bronchiolitis, Modulating viral infection of a cell, for treating or preventing respiratory virus infections, bronchitis, pneumonia or atchma, by modulating a binding interaction between a cell chemokine-receptor and surface protein of the virus. Disclosure; Page 117-119; 120pp; English. /product= "CXCR4" 12-AUG-2002; 2002WO-CA001248 10-AUG-2001; 2001US-0311088P (TOPI-) TOPIGEN PHARM INC 2003-256541/25. Renzi P, Zemzoumi P-PSDB; ABP97733 WO2003014153-A2 

Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

g ò ద  $\delta$ d ò g  $\stackrel{\circ}{\sigma}$ d ò g 8 g  $\stackrel{\circ}{\circ}$ a

246 343 366 126 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 103 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 163 TGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 223 127 ccaccanaricocricacoccrarcaccarcarcancancancercricarriccorcananana 186 283 403 credecadridareceredecaaacregracrireegaacrirecrarecaaegeagreea 426 523 TGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGA 486 CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA 463 7 GCGCCAGCAGGTAGCAAAGTGACGCCGAGGCCTGAGTGCTCCAGTAGCCACCGCATCTG recraarricaaraaarcriccreccaccarcracrecarcarcrictraacreecar AGTCGCCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTT GGACAAGTACAGGCTGCACTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTT CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCAT TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA Gaps ., Length 1679; 65.2%; Score 446.8; DB 7; Length 83.0%; Pred. No. 7.7e-121; Arive 0; Mismatches 102; Indels Matches 523; Conservative Query Match Best Local Similarity 164 44 12 72 224 187 284 344 307 367 247 404 464 427

The present invention describes antigenic peptides (I) comprising: (a) any one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino acides Also described: (1) am assay for the detection of a particular of protein-coupled receptor (GPCR) or a candidate polypeptide in a sample; and (2) an isolated antibody having high specificity and high affinity or avidity for a particular GPCR. (I) can be used as GPCR modulaters and in artibody against a particular GPCR, and in the production of specific artibodies. The apptides and antibodies are also useful for detecting an antibodies are absence or absence of corresponding GPCRs. The antigenic peptides for GPCRs and antibodies are useful for diagnosing and designing drugs for treating immune-related diseases, growth-related diseases, cell cregeneration-related diseases, immunological-related cell proliferative diseases, or autoimmune diseases, immunological-related cell proliferative atherosclerosis, bacterial, fungal, protozoan or viral infections, G protein-coupled receptor; GPCR; antigenic peptide; gene therapy; grotein-coupled receptor modulator; antibody; immune-related disease; growth-related disease; cell regeneration-related disease; AIDS; cancer; immunological-related cell proliferative disease; autoimmune disease; Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy; osteoporosis; cardiomyopathy; inflammation; Crohn's disease; diabetes; graft versus host disease; hardiammation; Crohn's disease; pain; psoriasis; anxiety; depression; schizophrenia; dementia; memory loss; mental retardation; epilepsy; asthma; tuberculosis; obesity; nausea; hypertension; hypotension; renal disorder; rheumatoid arthritis; trauma; ulcer; gene; ds. New isolated antigenic peptides e.g., for G protein-coupled receptors (GPCR), useful for diagnosing and designing drugs for treating conditions in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or autoimmune diseases. 546 909 CGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGA 584 AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT Human CXC chemokine receptor 4 nucleotide SEQ ID NO:75. 644 CTTTGCCGACGTCAGCCAGGGGACATCAG 673 607 cirreccaácercaercaedecaeáreacae 636 Disclosure, Fig 1; 523pp; English. (LIFE-) LIFESPAN BIOSCIENCES INC. 487 à à g

osteoarthritis, osteoporosis, cancer, cardiomyopathy, chronic and acute inflammation, allergies, Crohn's disease, diabetes, graft versus host disease, Parkinson's disease, multiple sclerosis, pain, psoriasis, anxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, asthma, tuberculosis, obssity, nauesa, hypertension, hypotension, renal disorders, rheumatoid arthritis, trauma, ulcers, or any other disorder in which GPCRs are involved. The antibodies may be used in immunoassays and immunodiagnosis. ABX412513 to ABX42869 encode GPCR proteins given in ABP81675 to ABP82018, which are used in the exemplification of the present invention 883999999888888

7.70

Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGTAAGGAGCATGAC TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA TGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGCAGTGTGGA AAAGGCAGTCTAGGCGTCTGGATCCCCAGCCCTCCTGACTATACCTGACTTCAT 547 AAAGGIGGICIAIGIIGGCGICIGGAICCCIGCCCICCIGCIGACIAIICCCGACITCAI 44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 72 gagaaccagcggraaccargga-----ggggarcagrararacacrrcagaraacrac TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGAACCCTGCTTCCGGGATGAAAA 127 cgaggaanregecreagggacrargacrecarcaaggaccererrecereaagaaa CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCAT 247 reresecaaresarresrearecresreareserraceasaasaaacreasaaseeeeee GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACCCCTT GGACAAGTACAGGCTGCACTGTCAGTGGCCGACCTCCTCTTGTCATCACGCTTCCCTT CTGGGCAGTTGATGCCATGGCTGACTTGGGAAATTTTTGTGTAAGGCTGTCCA CTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA CCGGTACCTCGCCATTGTCCACGCCACCACACAGTCAAAAGGCCAAGGAAAACTGCTGGA Gaps 'n DB 7; Length 1679; Indels Score 446.8; DB 7; Pred. No. 7.7e-121; 0; Mismatches 102; CTTTGCCGACGTCAGCCAGGGGGACATCAG 673 65.2%; ilarity 83.0%; Conservative Local Similarity les 523, Conserv 224 187 344 307 367 464 584 644 64 404 427 524 Query Match Best Loca Matches 셤 셤 ò 임 ò 셤 ò a à g ò g 8 g à 원 8 8 ò

crirgecaacercaercaecaearcacae 636 607

ADC98645 standard; cDNA; 1679 

(first entry)

Human; CXC chemokine receptor 4; CXCR4; CXCR4 inhibitor; Human CXC chemokine receptor 4 (CXCR4) -encoding cDNA.

small cell lung cancer; SCLC; cellular adhesion; cellular proliferation; metastasis; motility; morphological change; drug screening; monitoring; cytostatic; gene; ss.

Homo sapiens.

/\*tag= a /product= "Human CXCR4" Location/Qualifiers 89. .1147 /\*tag= a

WO2003079020-A2

25-SEP-2003

20-MAR-2003; 2003WO-EP002916

ä

20-MAR-2002; 2002US-0366370P

(DAND ) DANA FARBER (NOVS ) NOVARTIS AG.

Salgia R;

163 126 223 186 283 246 343 306 403 366 463 426 523 486 583

71

WPI; 2003-757037/71. P-PSDB; ADC98646.

Use of a CXC chemokine receptor 4 (CXCR4) inhibitor, for modulating cellular adhesion or inhibiting proliferation, movement, or morphological change in a small cell lung cancer (SCLC) cell population, or for treating a subject having SCLC.

Disclosure; SEQ ID NO 1; 78pp; English

The invention relates to methods and compositions for inhibiting small cell lung cancer (SCLC) proliferation and metastasis through modulation of the composition of CXC chemokine receptor 4 (CXCR4), and optionally, that of the tyrosine kinase receptor -Xit. Administration of a CXCR4 inhibitor modulates cellular adhesion and inhibits cellular composition. The invention is based on the finding that CXCR4 is ubjquitously expressed, and c-Xit is variably expressed, in SCLC cells. The invention also discloses methods of screening for CXCR4 is ubjquitously expressed, and c-Xit is variably expressed, in SCLC cells. The invention also discloses methods of screening for CXCR4 and is therefore amenable to CXCR4 inhibitor therapy, determining whether a sample of lung cancer cells expresses CXCR4 and is therefore amenable to treatment with a combination of a CXCR4 inhibitor and a c-Xit inhibitor; and a method of assessing whether CXCR4 inhibitor and a c-Xit inhibitor combination therapy should be continued, by determining CXCR4 (and optionally c-Xit) activity in two or more the methods of the invention and SCLC patient during the course of treatment. The methods of the invention of screening SCLC, for determining whether a SCLC from individual patients is suitable for treatment with agents of the invention; of the invention, and for determining whether such treatment is effective and should be continued. The presents expresents cDNA encoding human constituted in methods of the invention. 

Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

546

643

Gaps i, 65.2%; Score 446.8; DB 9; Length 1679; 83.0%; Pred. No. 7.7e-121; ative 0; Mismatches 102; Indels 5; Best Local Similarity 83.0 Matches 523; Conservative

103 44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 12 decendendendendadangaendaendagaengangenengangengenenga

> ઠે 임 ö 셤 ò

164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 223

us-09-367-052-5.rng

```
186
                                                                    343
                                                                                403
                                                                                                                              366
                                                                                                                                                463
                                                                                                                                                                   426
                                                                                                                                                                                       523
                                                                                                                                                                                                                               583
                                                                                                                                                                                                                                         CGGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGA 546
                                                                                                                                                                                                                                                                      AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCAT 643
GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTGTCATCACGCTTCCCTT
                             CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCAT
                                               recraariticaaraaarcriccreccaccarcracrecarcarcricricaacrescar
                                                                    AGTOGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGCTAAGGAGCATGAC
                                                                                                          GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCTT
                                                                                                                                                 CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                   cresscherreariscenteschaleriestrachtreschalterarischaleschaltera
                                                                                                                                                                                        TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                CTTTGCCGACGTCAGCCAGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                           547
                                                                    284
                                                                                                                                                                                                            427
         127
                                                187
                                                                                                                              307
                                                                                                                                                 404
                                                                                                                                                                    367
                                                                                                                                                                                         464
                                                                                                                                                                                                                                 524
                                                                                                                                                                                                                                                   487
                                                                                                                                                                                                                                                                       584
                                                                                                                                                                                                                                                                                                               644
                            224
                                                                                                           344
                                                                                                                                                                                                                                                                                                                                 607
          유
                                            g &
                                                                                  g
                                                                                                                         g
                                                                                                                                               ò
                                                                                                                                                                 g
                                                                                                                                                                                                       g
                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                  \delta
                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                              8 8
                         ò
                                                                                                      ö
                                                                                                                                                                                       \dot{\delta}
```

ABZ35348 standard; cDNA; 1711 BP

ABZ35348

(first entry) 05-FEB-2003 Human gene expression profile polynucleotide SEQ ID NO 459.

Human, artery; endothelium; umbilical; vein; aorta; pulmonary artery; bronchial epithelium; prostate; muscle; lung fibroblast; osteoblast; tumour; microarray; genome mapping; antibiotic; antiviral; antifungal; gene expression; gene; ss. RESULT 15

AB235348

ID AB235348

XX AC AB23

XX ED COLOR

XX Huma

XX Huma

XX Huma

XX Huma

XX Huma

XX Huma

XX YORO

XX Huma

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

XX YORO

Homo sapiens

WO200274979-A2

26-SEP-2002.

20-MAR-2002; 2002WO-US008456.

20-MAR-2001; 2001US-0276947P.

(ORTH ) ORTHO CLINICAL DIAGNOSTICS INC.

Wan J, Wang Y;

New gene expression profile generated from primary, endothelial, epithelial, and muscle cell types, useful for identifying disease pathologies involving alterations of gene expression, e.g. cancer. WPI; 2002-740862/80

Disclosure; Page 609; 850pp; English

The invention relates to a gene expression profile comprising one or more genes (ABZ34889-ABZ35692) and generated from a cell type. The cell type of sa a coronary artery andochelium, umbilical artery or vein endothelium, actors accular endothelium, pulmonary artery conductabilium, dermal microvascular endothelium, pulmonary artery according to epithelium, prometrial pitchelium, mammary epithelium, prostate pitchelium, renal epithelium, renal proximal tubule epithelium, cepithelium, renal epithelium, renal proximal tubule epithelium, cepithelium, renal epithelium, umbilical artery smooth consists dermal fibroblast, pulmonary artery smooth muscle, dermal fibroblast, neural progenitor cells, skeletal muscle, astrocytes, cortic smooth muscle, unestine smooth muscle, lung fibroblast, coronary artery smooth muscle, cortectine smooth muscle, unestine smooth muscle, lung fibroblast, cortectine smooth puscle, unestine smooth muscle, unestine smooth muscle, unestine smooth muscle, respect to trace as ample, determining the level of RNA expression for a sample, determining the level of RNA expression for a sample, determining the level of RNA expression for a sample, cortecting expression profile is useful in identifying disease pathologies involving alterations of gene expression. The assessment of expression profiles may also be used for creating microarrays. The microarray is useful for genetic and physical mapping of genomes, DNA sequencing, genetic or dentifications and in identifying promising antibictics, antiviral or catifungal agents 

Sequence 1711 BP; 423 A; 407 C; 373 G; 507 T; 0 U; 1 Other;

106 223 343 403 583 643 161 283 281 341 401 463 461 523 521 581 641 44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGGCTG 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 107 GAGAACCAGGGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC 222 IGCTAATTICAATAAAAICTICCIGCCCACCAICTACTCCCAICATCTICTIAACIGGCAI 284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC 344 GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTT 342 GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTT CTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCGACTATACCTGACTTCAT 164 TGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT CTGGGCAGTTGATGCCATGGTACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA TATCATCTACACTGTCAACCTGTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA Gaps s. DB 6; Length 1711; Match Local Similarity 83.0%; Pred. No. 7.8e-121; Length es 523; Conservative 0; Mismatches 102; Indels CTTTGCCGACGTCAGCCAGGGGACATCAG 673 402 462 584 582 404 464 524 644 Query Match g a 염 장 g ઠે Вb 8 6 6 6 8 8 8 8 6 ò 음 장 ò ò

Tue May 18 13:54:44 2004

642 CTTTGCCAACGTCAGTGAGGCAGATGACAG 671

Search completed: May 17, 2004, 06:37:07 Job time : 295.749 secs

Run on:

IDENTITY\_NUC Gapop 10.0 , Gapext 1.0 Scoring table:

682709 segs, 277475446 residues Searched:

Total number of hits satisfying chosen parameters:

1365418

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Issued\_Patents NA:\*
1: /cgrl2 6/ptodata/2/ina/5A\_COMB.seq:\*
2: /cgn2\_6/ptodata/2/ina/5B\_COMB.seq:\*
3: /cgn2\_6/ptodata/2/ina/6A\_COMB.seq:\*
4: /cgn2\_6/ptodata/2/ina/6B\_COMB.seq:\*
5: /cgn2\_6/ptodata/2/ina/PCTUS\_COMB.seq:\*
6: /cgn2\_6/ptodata/2/ina/PCTUS\_COMB.seq:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Description	Sequence 14, Appl	'n,	•	•	٠.	• •	e,	Sequence 3, Appli	'n	'n	ě	Sequence 3, Appli	'n	ä	4	4	Sequence 45, Appl	4	6	ä	φ	'n	Š	'n	Š	'n	s,
ΙD	US-09-517-605-14		US-09-023-655-1213	-08-	-08	9	-08	US-08-805-478-3	US-08-802-627A-3	18-801-238-	90	US-09-104-296-3	PCT-US94-06380-2	9-016-434-1	US-08-153-848-45	9-299-843A-4	US-09-088-337B-45	PCT-US93-11153-45	1.4	-09-170-4	US-08-202-056-6	-08-076-093A	US-08-701-265-5	US-08-284-586-5	US-08-805-478-5	US-08-802-627A-5	US-08-801-238-5
DB		4	4	Н	-	-	N	2	N	N	(7	ო	w	4	-	m	4	Ŋ	4	4	Н	-	н	N	N	N	0
Length	1679	1664	1664	1737	1737	1737	1737	1737	1737	1737	1737	1737	1737	1225	1317	1317	1317	1317	1119	1119	1679	1679	1679	1679	1679	1679	1679
% Query Match	5.2	65.1	65.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	64.1	62.9	ς.		62.5	ď		ς.	ď.	ς.	ς.		2		22.2
Score	46.	445.8	ъ.	6.	439.2		φ.		σ.		σ.	439.2		430.8	428	428	428	428	52.	152.4	152.4	152.4	52	52	152.4	152.4	152.4
Result No.	7	7	m	4	'n	Q	7	80	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27

Sequence 5, Appli Sequence 7, Appli Sequence 7, Appli Sequence 6, Appli Sequence 65, Appli Sequence 5, Appli Sequence 5, Appli Sequence 23, Appli Sequence 23, Appli Sequence 23, Appli Sequence 23, Appli Sequence 13, Appli Sequence 173, Appli Sequence 173, Appli Sequence 173, Appli Sequence 175, Appli Sequence 175, Appli Sequence 175, Appli Sequence 175, Appli Sequence 175, Appli Sequence 175, Appli	
US-08-801-228-5 US-09-104-296-5 US-09-104-296-5 US-08-982-493-7 US-08-982-493-7 US-08-628-655-1 US-09-116-498-5 US-09-116-498-5 US-09-116-498-3 US-09-116-498-3 US-09-116-498-3 US-09-116-498-3 US-09-116-498-3 US-09-116-498-3 US-09-116-498-3 US-09-116-498-3 US-09-116-498-1 US-09-116-498-1	
и м п м м м м м м м м м м м м м м м м м	
1679 1679 2818 2818 2085 2085 2075 1029 2751 2751 1037 1107 1107 1107	
22222222222222222222222222222222222222	
4 4 4 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	

### ALIGNMENTS

```
g
                                8 6 8 6 8 6
                                                                                                                                                                                                            ò
       426
                                                                                              583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 AGAACCAGGGTTACCATGGA-----GGGGATCAGTATACACTTCAGATAACTACACC 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               225 GICCATTICAATAGGATCTICCTGCCCACCATCTACTTCATCTTCTTGACTGGCATA 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTTTTCTCATCACGCTTCCCTTC 355
                                                                                                                          546
                                                                                                                                                        643
                                                                                                                                                                      105 AGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCT 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            165 GAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAAC 224
                                     523
                                                                486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         45 CAGGIGCAGGIAGCAGIGACCCICTGAGGCGITTGGIGCTCCGGIAACCACCACGGCTGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            176 GCTAATTTCAATAAATCTTCCTGCCCACCATCTACTCCATCTTCTTAACTGGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                285 GTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCAAGGAGCATGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            236 gracicaaricaarracircarcercarcaracerraceaaagaaacraaaagcaraacd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTC
                                                                                              367 CTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA
                                                      TGTCATCTACACACTCAACCTCTACACCAGTGTCCTCATCCTGGCCTTCATCAGCAGCAGGA
                                     TATCATCTACACTTCAACCTCTACAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                          487 coderracerodecerregreciaedeceaeceaecaereaeseceaeceaecerereae
                                                                                                                                                        AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 83.0%; Pred. No. 1.9e-116;
Matches 522; Conservative 0; Mismatches 102; Indels
                                                                                                                                                                                                                                                                                                           Sequence 5, Application US/09582224A
Fatent No. 6429308
GENERAL INPORMITION:
APPLICANT: ILIMA, Osamu
APPLICANT: GTOO, Takeshi
APPLICANT: SHIMADA, Takashi
ITILE OF INVENTION: HIV Infection Inhibitors
FILE REFERENCE:
CURRENT APPLICANTION NUMBER: US/09/582,224A
CURRENT FILING DATE: 2000-07-21
FRIOR FILING DATE: 1999/11/24
FRIOR FILING DATE: 1999/11/24
NUMBER OF EXILED INOS: 5
SOFTWARE: Microsoft Word
SEQ ID NO 5
IENGTH: 1664
TYPE: DNA
ORGANISM: Artificial Sequence
FRANTER:
                                                                                                                                                                                                                644 CTTTGCCGACGTCAGCCAGGGGGACATCAG 673
                                                                                                                                                                                                                                             criridecaacercaercaecaearcae 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
; OTHER INFORMATION: CDNA of CXCR4
US-09-582-224A-5
                                                                                                                                                                                                                                                                                       RESULT 2
US-09-582-224A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          345
                                     464
                                                                427
                                                                                              524
                                                                                                                                                        584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \delta
a
                                $ 8 $
                                                                                                                  8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8
                                                                                                                                                                                                               8
```

415 524 475 584 535 644

356 TGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCAT

TGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGGAAATTTTTGTGTAAGGCTGTCCAT

416 GICATCTACACAGCAAACTCTACAGCAGTGTCCTCATCCTCGCCTTCATCAGCATCTGGAC

465 ATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGAC

TTTGCCGACGTCAGCCAGGGGGACATCAG 673

645

AAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATC

```
115
                                                                                                                                                                                                                                                                                              175
                                                                                                                                                                                                                                                                                                                                                                                                                                          235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                644
                                                                             164
                                                                                                                                                                                                                                                                                                                                                                        284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   404
   9
                                                                                                                                                                                                                                                           176 GCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTAACTGGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         296 GACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                465 AICAICIACACTGICAACCICTACAGCGAGTICTCATCCTGGCCITCATCAGCCTGGAC
                                                                                                                           61 AGAACCAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACACC
                                                                                                                                                                                                                        165 GAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   285 GTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         236 GIGGGCAATGGATIGGICATCCIGGICAIGGGITACCAGAAGAAACIGAGAAGCAIGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGGCAGTTGATGCCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   476 cecrácerescearcarececeaceaeceaecaacaacaaceaagaagerierragaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                585 AAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 cescrascialecialeciale de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra dela contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra dela contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra dela contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra dela contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra 
                                                                             105 AGAGCGAGTGTTGCCATGGAACCGATCAGTGTGTATATACACTTCTGATAACTACTCT
                                                                                                                                                                                                                                                                                                                                                                        225 GICCATITCAAIAGGAICTICCIGCCCACCATCTACTICATCAICTICTIGACTGGCAIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      345 GACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 4, Application US/08202056;
Sequence 4, Application US/08202056;
Patent No. 5440021
GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Hebert, Caroline
APPLICANT: Kim, Kyung Jin
APPLICANT: Lee, James
TITLE OF INVENTON: Antibodies to Human IL-8 Type B Receptor
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 94080

COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/202,056
FILING DATE: Z5-FEB-1994
CLASSIFICATION: 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               645 TITGCCGACGICAGCCAGGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rrreccaacercaercaecaearcaeae 624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
US-08-202-056-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     525
d
                                                                                                                                               g
                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                        \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
289
                                                                                                                                                                                                                                                                                                                                                                        50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGACGTGTAGAGC 109
                                                                                                                                                                                                                                                                                                                                                                                                                                    169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           135 AArdddcrichdddddalddardahddaacccrigrrrccdrdaadaaaardcraA 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             195 TITCAAIAAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCATTGTGGG 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     435 cracacadreaccreracadeadrererenteredecerreacadereredaceera 494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 554
                                                                                                                                                                                                                                                                                                                                                                                                     79
                                                                                                                                                                                                                                                                                                                                                                                                                                                    375 AGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             110 GAGIGIIGCCAIGGAACCGAICAGIGIGAGIAIAIACACTICIGAIAACTACTCIGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                170 AGIGGGGICIGGAGACIAIGACICCAACAAGAAACCCIGCIICCGGGAIGAAAACGICCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    350 GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                410 AGTIGATGCCATGGTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       590 AGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITCAATAGGAICTICCIGCCCACCAICTACTICATCATCTICTIGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                          ..
ເກ
                                                                                                                                                                                                                                                                                                             Length 1737
                                                                                                                                                                                                                                                                                                           Query Match 64.1%; Score 439.2; DB 1; Length Best Local Similarity 82.7%; Pred. No. 1.4e-114; Matches 516; Conservative 0; Mismatches 103; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 673
PRIOR APPLICATION DATA:

APPLICATION NUMBER: 07/67211
FILING DATE: 29-MAR-1991
ATTORNEY/AGENT INFORMATION:
NAME: Loove, Richard B.
REGISTRATION NUMBER: 34.659
REFERENCE/DOCKET NUMBER: 706P3
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/952-9881
TELEFAX: 91/371-1168
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 bases
LYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 650 CGACGTCAGCCAGGGGACATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               615 CAACGICAGIGAGGCAGAIGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
US-08-076-093A-3
; Sequence 3, Application US/08076093A
; Patent No. 5543503
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                      ;
US-08-202-056-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              470
                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
sss generalgingecenchedancecrecencencerdaeranceceaenicarentide 614
375 AGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCAT 434
                                                                                                                       435 CTACACAGTCAACTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACGCTA
                                                                                                                                                                                         495 CCTGGCCATCGTCCACCCACCAAACAGTCAAAAGGCCAAGGAAGCTGTTGGCTGAAAAGGT
                                                                                                                                                                                                                                                                                               590 AGICTALGIGGGCGICTGGAICCCAGCCCICCTGACTALACCTGACTICATCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 3, Application US/08701265
Patent No. 5776457
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: JIN KIM, K.
ITLE OF INVENTION: Antibodies to Human PF4A Receptors
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 439.2; DB 1;
Pred. No. 1.4e-114;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: MinPatin (Genentech) CURRENT APPLICATION DATA: APPLICATION DATA: APPLICATION NUMBER: US/08/701,265 CLASSIFCATION NUMBER: US/08/701,265 CLASSIFCATION NUMBER: 08/076093 PRIOR APPLICATION NUMBER: 07/81078 APPLICATION NUMBER: 07/81078 APPLICATION NUMBER: 07/81078 APPLICATION NUMBER: 07/87211 PRIOR APPLICATION NUMBER: 07/87211 APPLICATION NUMBER: 07/677211 APPLICATION NUMBER: 07/677211 APPLICATION NUMBER: 07/677211 APPLICATION NUMBER: 07/677211 APPLICATION NUMBER: 34,659 REGISTRATION NUMBER: 34,659 REFRENCE/DOCKET NUMBER: 706P2 TELEPHONE: 415/225-5530
                                                                                                                                                                                                                                                                                                                                                                                                      650 CGACGTCAGCCAGGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                            615 CAACGTCAGTGAGGCAGATGACAG 638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64.1%;
82.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 mucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: Nucleic Acid
STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-701-265-3
                                                                                  470
                                                                                                                                                                                         ò
                                                                                                                                                                                                                                      Б
                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                   ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                230 TITCAATAGGAICTTCCTGCCCACCATCTACTTCATCATCTTGTTTGACTGGCATAGTCGG 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      290 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   315 gracadecrecaccrercacresceaccrecrerrrereaceacerreses 374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         410 AGTIGATGCCATGGCTGACTGGTACTTTTGGGAAATTTTTTGTGTAAGGCTGTCCATATCAT 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                80 cagcigarraccardea-----gegearcagrararacacricagaraacracaccaaga 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          135 AATGGGCTCAGGGACTATGACTCCATGAGGAACCCTGTTTCCGTGAAGAAATGCTAA 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          195 TTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCATTGTGGG 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             255 CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAAACTGAGAAAGCATGACGGACAA 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   350 GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCCTTCTGGGC 409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 decedecedaaagreacecedaeeerreagrecreagraeeeacacacacareregaaaac 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 1; Length 1737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                            APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: Jin Kim, K.
TILLE OF INVENTION: Antibodies to Human PF4A Receptors
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 64.1%; Score 439.2; DB 1; Best Local Similarity 82.7%; Pred. No. 1.4e-114; Matches 516; Conservative 0; Mismatches 103;
                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: ACAINALE FORM: 1.44 Mb floppy disk COMPUTER: 18M PC comparible OPERATURG SYSTEM: PC-DOS/MS-DOS SOFFWARE: Windatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/076,093A
FLING DATE: 11-Jun-1993
CLASSIFICATION DATA:
APPLICATION NUMBER: 07/810782
FLING DATE: 19-DEC-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/67211
APPLICATION NUMBER: 07/67211
APPLICATION NUMBER: 07/67211
APPLICATION NUMBER: 34,659
REGISTRATION NUMBER: 34,659
REGISTRATION NUMBER: 34,659
REGISTRATION NUMBER: 706P2
TELEROMAUNICATION INPERMATION:
NAME: LOVE, RICHARD B
REGISTRATION NUMBER: 706P2
TELEROMAUNICATION INPERMATION:
NAME: LOVE, RICHARD B
REGISTRATION NUMBER: 706P2
TELEROMAUNICATION INPERMATION:
TELERHONE: 415/225-5530
                                                                                                                                                                                      ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: LENGTH: 1737 nucleotides TYPE: Nucleic Acid STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inc
COMPUTER: IBM PC com
                                                                                                                                                                                                                                                                                                                            ZIP: 94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
```

Length 1737;

589

109 649 134 229 194 289 254 349 314 409 469 434 529 494 589 554 614 315 gracasscriscacristcasresceacerecretrinsrearcacscricerrefese 374 79 530 CCTCGCCATTGTCCACGCCACCAACAGTCAAAGGCCAAAGGAAACTGCTGGAAAAAGGC 50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 80 CAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACACCGGAGGA 135 AATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAATGCTAA 230 TITCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGTTGACTGGCATAGTCGG CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 255 CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACAGAAA AGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT 375 AGITGAIGCCGIGGCAAACIGGIACTIIIGGGAACTICCIAIGCAAGGCAGICCAIGTCAI CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA ccredicarcerceaceaecagecagecaagecaageaagergrigecreaaaga 590 AGTCTATGTGGGGGTCTGGATCCCAGCCTCCTCCTGACTATACCTGACTTCATCTTTGC 555 GGICTAIGITGGCGICTGGAICCCIGCCCCCCGGCIAITCCCGACTICATCTIGC 20 ececececianas grande de centra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de 110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA 170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGG Gaps 5 Sequence 3, Application US/08284586

Sequence 3, Application US/08284586

RENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Lee, James
APPLICANT: Lee, James
APPLICANT: Jin Kim, K.
TITLE OF INVENTION: Antibodies to Human PF4A Receptors
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESSS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CTTY: South San Francisco
STATE: California
COUNTRY: USA 0; Mismatches 103; Indels MEDIUM TYPE: 3.5.mih, 1.44 Mb floppy disk COMPUTER: 1EM PC compatible OPERATING SYSTEM: PC-DOS/NS-DOS SOFTWARE: Winpatin (Genentech) CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/284,586 FILING DATE: CGACGTCAGCCAGGGGGACATCAG 673 CAACGICAGIGAGGCAGAIGACAG 638 516; Conservative 470 290 350 410 435 495 650 615 Matches ò ठे g ద 원 ð ద ò g 8 셤 ò D ò 8 à 셤 ò 8

CLASSIFICATION: 424

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/076,093A
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
PRIOR APPLICATION DATA: 19-DEC-1991
APPLICATION NUMBER: 07/677211
FILING DATE: 20-MAR-1991
ATTORNEY AGENT INFORMATION:
NAME: LOVE, RICHARD B
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 706P2
TELECOMMUNICATION INFORMATION:
TELECHONE: 415/225-5530
TELECK: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 nucleotides
TYPE: Nucleic Acid
STRANDEDNESS:

```
109
                                                                                                                                                                 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              649
                                                                                                                                                                                                                               229
                                                                                                                                                                                                                                                                                            289
                                                                                                                                                                                                                                                                                                             195 TITCAAIAAAATCTTCCTGCCCACCATCTACTCCATCATCTTAACTGGCAITGIGG 254
                                                                                                                                                                                                                                                                                                                                                                             255 CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGACGACAA 314
                                                                                                                                                                                                                                                                                                                                                                                                                       350 graccescrececrercagrescreacrescrecrerritercarcacacrecerreres 409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  375 AGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCAT 434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      435 CTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTA 494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         555 GGICTATGITGGCGICTGGATCCCTGCTCCTGCTGACTATTCCCGACTTCATCTTTGC 614
                                                                                                                                                                                              134
                                                                                                                                                                                                                                               290 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGACAA 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                       374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTGGCCATCGTCCACCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAGGT
                                                                                                   50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACGACGGCTGTAGAGC
                                                                                                                                                                 110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGAAGA
                                                                                                                                                                                          80 cadecartracartada-----agartadatatacaetteagataactacaeaga
                                                                                                                                                                                                                                                                                                                                                                                                                                             GTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCATCACGCTTCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       410 AGTIGATIGCCATGGCTGACTITIGGGAAATTITIGTGTAAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTACACTGTCAACCTCTACAGCAGCGTTCTCATCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              590 AGICTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGC
                                                                                                                                                                                                                                 170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAACGTCCA
                                                                                                                                                                                                                                                                                              TITCAATAGGATCTICCIGCCCACCATCTACTICATCATCTTGTTGACTGGCATAGTCGG
                                                                                                                                 20 ecececcecaagreaceceageecreagrecrecagraccaccaccecarcregaeaac
                                                                      Gaps
                                                                     5.
                                     Length 1737;
                                                                     Indels
                                     Score 439.2; DB 2;
Pred. No. 1.4e-114;
0; Mismatches 103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGACGTCAGCCAGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           caacercaergaecacaeargacae 638
                                      Query Match
Best Local Similarity 82.7%;
Matches 516; Conservative
;
US-08-284-586-3
                                                                                                                                                                                                                                                                                               230
                                                                                                                                                                                                                                                                                                                                                                                                                                                          315 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              615
                                                                                                      ઠે
                                                                                                                                     g
                                                                                                                                                                                              g
                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                 ò
```

80 CAGCGGITACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACACAGGA 134 170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA 229 50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 109 110 GAGIGITGCCATGGAACCGATCAGTGTGTATATACACTTCTGATAACTACTACTGAAGA 169 135 Aariedecricaededecrareacriceargaadeaaccricrrrcergaadaaaaaaaa 194 230 TITCAATAGGAICTICCIGCCCACCAICTACTICAICAICTICTIGACIGGCAIAGICGG 289 rrrcaaraaaarcrrccrgcccaccarcracrccarcarcrrcrracrgccarrarges 254 20 descesecicianas de consecencias de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contratas de contra 5; Gaps Query Match 64.1%; Score 439.2; DB 2; Length 1737; Best Local Similarity 82.7%; Pred. No. 1.4e-114; Matches 516; Conservative 0; Mismatches 103; Indels 5; Sequence 3, Application US/08805478
Patent No. 5874543
GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Chuntharapai, Anan
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Jun Kim, K.
TITLE OF INVENTION: ANTIBODIES TO PF4A RECEPTOR
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: Galifornia an Francisco
CITY: South San Bruno Blvd
CITY: South San Francisco
STREET: Galifornia
CONFUTER: READABLE FORM:
MEDIUM TYPE: 13.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATION SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Windatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/08/805,478
FILING DATE: 10-AUG-1994
PRICH APPLICATION BATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 11-JUN-1993
PRICH APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INPORMATION:
NAME: LOVE, RICHARD RESERVED.
TELECOMMUNICATION NUMBER: PO706P2PICI
TELECOMMUNICATION NUMBER: PO706P2PICI
TELECOMMUNICATION NUMBER: PO706P2PICI
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION NUMBER: PO706P2PICI
TELECOMMUNICATION NUMBER: PO706P2PICI
TELECOMMUNICATION NUMBER: PO706P2PICI TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:
LENGTH: 1737 base pairs 415/952-9881 TYPE: Nucleic Acid STRANDEDNESS: Single TOPOLOGY: Linear US-08-805-478-3 RESULT 8 US-08-805-478-3 g ò g ò ò ď ઠે

350 GTACGGGGACACCTCCATCATCTCTCTTTTGCATACTCCCTTTTGGGAATTCTTTGGGAATTCTTTGGGAATTCTTTGGGAATTCTTTGGGAATTCTTTGGGAATTCTTTGGGAATTCTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTTGGGAATTCTTTGGGAATTCTTTTGGGAATTCTTTGGGAATTCTTTGGGAATTCTTTGGGAATTCTTTGGGAATTCTTTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGAATTGGA
350 315 315 315 410 410 410 410 410 410 410 410 410 415 510 615 510 615 615 616 616 616 617 617 617 617 617 617 617
350 315 315 315 410 410 410 410 410 410 410 410 410 415 510 650 415 510 650 650 650 650 650 650 650 650 650 65

us-09-367-052-5.rni

~

```
Query Match
Best Local Similarity 82.7
Matches 516; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
US-08-801-238-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 350 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                       H
                                                                                                                                                  109
                                                                                                                                                                                                           169
                                                                                                                                                                                                                                        134
                                                                                                                                                                                                                                                                      229
                                                                                                                                                                                                                                                                                                    194
                                                                                                                                                                                                                                                                                                                                  289
                                                                                                                                                                                                                                                                                                                                                              254
                                                                                                                                                                                                                                                                                                                                                                                            349
                                                                                                                                                                                                                                                                                                                                                                                                                        314
                                                                                                                                                                                                                                                                                                                                                                                                                                                     409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               590 AGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGC 649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            614
                                                                                                                                                                               79
                                                                                                                                                                                                                                                                                                                                                                                                               410 AGTIGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTCGCCATTGTCCACGCCACCCAACAGTCAAAGGCCCAAGGAAACTGCTGGAAAAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCATCTTGC
                                                                                                                                                                   20 GCGCGCCAAAGTGACGCCGAGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAAC
                                                                                                                                                                                                                                                                                           315 GTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chacacachchachchachdrenchchchchrchdecchrchrchchchchchchchch
                                                                                                                                                50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC
                                                                                                                                                                                                             110 GAGIGITGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTGAAGA
                                                                                                                                                                                                                                80 CAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAGGA
                                                                                                                                                                                                                                                                      170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAAGGTCCA
                                                                                                                                                                                                                                                                                                                                  TITCAATAGGAICTICCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                              195 tritcaaraaarcirccigcccaccarcracrccarcarcriciraacrggcarrgrgg
                                                                                                                                                                                                                                                                                                                                                                                            CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             375 AGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                     Gaps
                                                                                                                     5,
                                                                                       Length 1737;
                                                                                                                     Indels
                                                                                       Score 439.2; DB 2;
Pred. No. 1.4e-114;
0; Mismatches 103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-801-238-3
; Sequence 3, Application US/08801238
; Patent No. 5919801
; Patent No. 5919801
; Patent No. 5919801
; Patent No. 5919801
; APPLICANT: Need, William I.
TITLE OF INVENTION: PF4A RECEPTOR
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
; COMPUTER READABLE FORM:
HEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGACGTCAGCCAGGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      caacercaercaecaearcaeae 638
                                                                                       Query Match 64.1%;
Best Local Similarity 82.7%;
Matches 516; Conservative
h LENGTH: 1737 base pairs

TYPE: Nucleic Acid

STRANDENESS: Single

TOPDLOGY: Linear

US-08-802-627A-3
                                                                                                                                                                                                                                                                                                                                  230
                                                                                                                                                                                                                                                                                                                                                                                            290
                                                                                                                                                                                                                                                                                                                                                                                                                        255
                                                                                                                                                                                                                                                                                                                                                                                                                                                     350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      615
                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                               셤
```

```
109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  255 CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAACTGAGAAGCATGACGACAA 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   590 AGICTATGIGGGGGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGC 649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20 decedecana de caracce de de compara de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80 CAGCGGTTACCATGGA----GGGGATCAGTATATACACTTCAGATAACTACAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gracogeriecacerereagneericacerecreeringrearcacecerecreege
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           495 CCTGGCCATCGTCCACGCCACCAACAGTCAGAGCCCAAGGAAGCTGTTGGCTGAAAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  135 AATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGGAAATGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              230 TITCAATAGGATCTICCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTTGATGCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      110 GAGTGTTGCCATGGAACCGATCAGTGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64.1%; Score 439.2; DB 2;
82.7%; Pred. No. 1.4e-114;
tive 0; Mismatches 103;
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Generated)
CURRENT APPLICATION DATA:
PILING DATE: 19-Feb-1997
CLASSIFICATION DATA:
PILING DATE: 19-Feb-1997
CLASSIFICATION NUMBER: 08/284586
PILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: 08/016093
PILING DATE: 11-JUN-1993
PRIOR APPLICATION NUMBER: 34,659
PRIOR APPLICATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 90706P2PIDI
TELECOMMUNICATION INFORMATION:
TELEFAX: 415/255-5530
TELEFAX: 415/255-5530
TELEFAX: 415/255-5530
TELEFAX: 415/255-5530
TELEFAX: 415/255-5530
TELEFAX: 415/255-5530
TELEFAX: 415/255-5530
TELEFAX: 415/255-5530
TELEFAX: 415/255-5530
TELEFAX: 310/371-7168
INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERICATICS:
LENGTH: 1737 base pairs
TELEGOMUNICATION NUMBER: 91861
TELEFAX: 415/255-5530
TELEFAX: 415/255-5530
TELEFAX: 415/255-5530
TELEFAX: 310/371-7168
TELEFAX: 310/371-7168
TELEFAX: 310/371-7168
TELEFAX: 310/371-7168
TELEFAX: 310/371-7168
TELEFAX: 310/371-7168
TELEFAX: 310/371-7168
TELEFAX: 310/371-7168
TELEFAX: 310/371-7168
TELEFAX: 310/371-7168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
```

ij,

169

289

254

349 314 409 469

434

374

649

```
555 GGICIANGINGGCGICTGGANCCCTGCCTGCTGACTANTCCCGACTTCANCTTTGC 614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               435 CTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTA 494
135 AATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAATGCTAA 194
                                                                                                                           195 TTTCAATAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCATTGTGGG
                                                                                                                                                                                                                            255 CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       375 AGTIGATGCCGIGGCAAACTGGTACTITGGGAACTICCTATGCAAGGCAGTCCAIGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                495 CCTGGCCATCGTCCACGCCACCAACAGTCAAAGGCCAAGGAAGCTGTTGGCTGAAAAGGT
                                                                                                                                                                                                                                                                                                                   350 GIACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                    315 GTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTGTCATCACGCTTCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       590 AGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCGACTATACCTGACTTCATCTTTGC
                                                                                                                                                                                       CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                           410 AGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                  TITCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:

MEDIUM TYPE: 35 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Winheatin (Genentech) CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/104,296
FILING DATE: 24-June-1998
CLASSIFICATION DATA:
APPLICATION NAMBER: 08/701265
FILING DATE: 22-AUG-1996
FILING DATE: 22-AUG-1996
FILING DATE: 08/64228
FILING DATE: 06-JUN-196
FILING DATE: 06-JUN-1996
FILING DATE: 11-JUN-193
FILING DATE: 11-JUN-193
FILING DATE: 11-JUN-193
FILING DATE: 11-JUN-193
FILING DATE: 11-JUN-193
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
US-09-104-296-3
US-09-104-296-3
; Sequence 3, Application US/09104296
; Parent No. 6087475
; GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Wood, William I.
TITLE OF INVENTION: PF4A Receptors
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 1 DNA WAY
CITY: South San Francisco
STATE: California
CONNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  650 CGACGTCAGCCAGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              615 caacgrcagrcaggcagargacag 638
                                                               230
                                                                                                                                                                                       290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      470
                                                                                                                                                                                                                                  d
                                                               ò
                                                                                                                    Бb
                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
555 GGTCTATGTTGGCGTCTGGATCCCTGCCTGCTGACTATTCCCGACTTCATCTTTGC 614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                80 CAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACACCGAGGA 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCTGCTTCCGGGATGAAAAGTCCA 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20 decedecida a de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra 
                                                                                                                                                                                                                                                                                                         Sequence 3. Application US/08801228
Fatent No. 592541
GENERAL INFORMATION:
GENERAL INFORMATION:
FAPPLICANT: Lee, James
APPLICANT: Wood, William I.
TITLE OF INVENTION: METHODS FOR DETECTION AND AMPLIFICATION OF
TITLE OF INVENTION: P44 RECEPTOR NUCLEIC ACID
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STREET: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
64.1%; Score 439.2; DB 2; Length
Best Local Similarity 82.7%; Pred. No. 1.4e-114;
Matches 516; Conservative 0; Mismatches 103; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  650 CGACGTCAGCCAGGGGACATCAG 673
                                                                                                                                                      615 caacercaercaedecaearcaeae 638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELERAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 base pairs
TYPE: Nucleic Acid
STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: Linear
                                                                                                                                                                                                                                                   RESULT 11
US-08-801-228-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-801-228-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      170
                                 엄
                                                                                          ò
                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

us-09-367-052-5.rni

NAME: LOVE, Richard B.

REGISTRATION NUMBER: 34,659
REFERENCE/OCKET NUMBER: P0706P2C2
FELECOMMUNICATION INFORMATION:
TELEFANCE 415/25-5530
FELEFAX: 415/25-5530
FELEX: 910/371-7468
FELEX: 910/371-7468
FELEX: 910/371-7768
FELEX: 1777 base pairs
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid
FYPE: Nucleic Acid

Gaps 5, Length 1737; Score 439.2; DB 3; Length : Pred. No. 1.4e-114; O; Mismatches 103; Indels Query Match
Best Local Similarity 82.7%;
Matches 516; Conservative

g

à

엄 Š

à

195 TITCAATAAAATCTICCTGCCCACCATCTACTCCATCATCTTTTAACTGGCATTGTGGG 230 TTTCAATAGGATCTTCCTGCCCACCATCACTTCATCATCTTCTTGACTGGCATAGTCGG

d

g à g

à

254 349 314 409

255 CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGGACAA 290 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGTAAGGAGCATGACGGACAA 350 GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGC

315 GTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTTGTCATCACGCTTCCCTTCTGGGC

셤

엄

ò

ò

ઠે

435 CTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTA 170 CTACACTGICAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA

590 AGICTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGC

à 셤

555 GGTCTATGTTGGTCTGGATCCCTGCCTGCTGACTATTCCCGACTTCATCTTTGC

494

554

614

650 CGACGTCAGCCAGGGGACATCAG 673 CAACGICAGIGAGGCAGAIGACAG 638

RESULT 13
PCT-US94-06380-2
Sequence 2, Application PC/TUS9406380
Sequence 2, Application PC/TUS9406380
GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: K. Jin Kim
APPLICANT: Genentech, Inc.

DISRODERS METHODS FOR TREATING INFLAMMATORY disk TITLE OF INVENTION: METHODS FOR TREATING INF
NUMBER OF SEQUENCES: 3
CORRESPONDENCES: 3
CORRESPONDENCES: 3
CORRESPONDENCES: 3
COUNTRY: Gouth San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIF: 94060
COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy dis)
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/06380
FILING DATE: 11-07101-1993
ATPORNEY-PORENT INCHANGER: 34,659
REGISTRATION: NUMBER: 34,659
REFERENCE/DOCKT NUMBER: 34,659
REFERENCE/DOCKT NUMBER: 34,659
REFERENCE/DOCKT NUMBER: 34,659
REFERENCE/DOCKT NUMBER: 34,659
REFERENCE/DOCKT NUMBER: 34,659
REFERENCE/DOCKT NUMBER: 360076093
TELLEPHONE: 415/252-981
TELEFAX: 415/252-981
TELECOMMUNICATION INFORMATION:
TELEFAX: 415/252-981
TELEFAX: 415/252-981
TELEFAX: 415/352-981
TELEFAX: 415/352-981
TELERAX: 415/352-981
TELERAX: 415/352-981
TELERAX: 1737 bases
TYPE: nucleic acid ; TOPOLOGY: linear PCT-US94-06380-2

٠. د. Length 1737; Indels Score 439.2; DB 5; Pred. No. 1.4e-114; 0; Mismatches 103; Query Match
Best Local Similarity 82.7%;
Matches 516; Conservative (

50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC

ઠે

469 434 529

374

109

169 134 79 20 GCGCGCGCAAAGTGACGCCCGAGGCCTGAGTGCTCCCAGTAGCCACCGCATCTGGAGAAC 110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA 유 ò 셤

229 289 194 135 AATGGGCTCAGGGGACTATGACTCCATGAGGAACCCTGTTTCGTGAAGAAAATGCTAA 170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAACGTCCA TITCAADAGARCIICCIGCCACCAICIACTICAICAICTICAIGGCADAGICGG 230 ò ద ઠે

349 314 409 254 255 CANTGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGACAA CAAIGGAITGGIGAICCIGGICAIGGGITACCAGAAGAAGCIAAGGAGCAIGACGGACAA 290 9 ò 셤 ₽

350 GIACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGC

469 374 434 GTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGC 410 AGTIGATGCCATGGCTGACTGGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT 375 315 В à ద

494 470

ਨੇ

```
CCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGT
RESULT 14
US-09-016-434-1235

j sequence 1235, Application US/09016434

parent No. 6500938

generation information:
APPLICANT: Janice Au-Young

TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF SIGNALING

TITLE OF INVENTION: PATHWAY GENE EXPRESSION

TUMBER OF SEQUENCES: 1490

CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
STREET: 3174 PORTER DRIVE

CITY: PALO ALTO

STATE: CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 62.9%; Score 430.8; DB 4; Length 1225; Best Local Similarity 87.5%; Pred. No. 3e-112; Matches 471; Conservative 0; Mismatches 67; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible COMPUTER: DC-DOS/MS-DOS SOFTWARE: PC-DOS/MS-DOS SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2 CURRENT APPLICATION DATA: APPLICATION DATA: FILING DATE: HEREWITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
RECISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: 97,002 US
TELECHONE: (650) 845-0555
TELEPHONE: (650) 845-04166
INFORMATION FOR SEC ID NO: 1235:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                650 CGACGTCAGCCAGGGGACATCAG 673
                                                                                                                                                                                                           CAACGICAGIGAGGCAGAIGACAG 638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 1225 base pai
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: HEREWITH CLASSIFICATION: PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; IMMEDIATE SOURCE;
LIBRARY: GENBANK
; CLONE: 9189313
US-09-016-434-1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
530
                                                                                290
                                   g
                                                                              ò
                                                                                                                 g
                                                                                                                                                            à
                                                                                                                                                                                                셤
```

435

TCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG

216 GTTACCAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCG 376 ACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTTACT

316 GTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCT

 $\dot{\delta}$ g ઠે q 8 g ઠે g ઠે 셤 ò

436 TIGGGAAAITITITGIGIAAGGCIGICCAIAICAICTACACTGICAACCICTACAGCAGCG 495

276 Accrecretrierearcacerrecerresecaercareceresecaaacresideracr

```
RESULT 15
US-08-153-848-45
Sequence 45, Application US/08153848
Sequence 45, Application US/08153848
Ratent No. 5759804
GENERAL INFORMATION:
APPLICANT: Godiska, Ronald
APPLICANT: Godiska, Ronald
APPLICANT: Schweikart, Vicki L.
TITLE OF INVENTION: No. 5759804el Seven Transmembrane Receptors
NUMBER OF SEQUENCES: 64
CORRESPENDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
CORRESSEE: Marshall
STREET: 6300 Sears Tower, 233 South Wacker Drive
CITT Chicago
STATE: 111inois
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIN Release #1.0, Version #1.25

SUBPRICATION NUMBER: US/08/153,848

FILING DATE:

TLASSITCATION NUMBER: US/08/153,848

FILING DATE:

TLASSITCATION NUMBER: US/08/153,848

FILING DATE:

APPLICATION NUMBER: US/08/153,848

FILING DATE: 11-NOV-1992

ATTORNEY/AGENT INFORMATION:

NAME: NO. 5759804and, Greta E.

REGISTRATION NUMBER: 31,94

TEMECOMMUNICATION INDERER: 31,94

TEMECOMMUNICATION INDERER: 3174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE: (312) 474-6300
TELERAX: (312) 474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 45:
SEQUENCE CHARACTERISTICS:
LENGTH: 1317 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
```

196 ACAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCA 255 TGAAGGAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCA 155

d ò

136 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCA

ó

ö 554 CAGTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCC 613 614 AGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCGGGGACATCAG 673 193 313 284 CATCTACTCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGTGGTCATCTGGTCATCCTGGTCAT 343 403 433 404 CGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTA 463 493 524 IGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACGA 583 644 IGCCTCCTGCTGACTATTCCCGACTTCATCTTTGCCAACGTCAGTGAGGCAGATGACAG 703 223 253 224 CATGAAGGAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCAC 283 314 GGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGC 373 494 CGIICICAICCIGGCCIICAICAGCCIGGACCGGIACCICGCCAIIGICCACGCCACCAA 553 164 TITICAGATATACACTTCAGATAACTACAGGAAATGGGCTCAGGGGACTATGACTC 374 TGACCTCCTCTTTGTCATCACACCTCCCTTCTGGGGAGTTGATGATGGCCATGGCTAACTGGTA CITTGGGAAATTTTGGGAAAGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAG 254 CATCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCAT 134 TGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTC 194 CAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCAC Gaps ; Length 1317; Query Match
62.5%; Score 428; DB 1; Length 13
Best Local Similarity 87.0%; Pred. No. 1.9e-111;
Matches 470; Conservative 0; Mismatches 70; Indels 584 434 gg g g à 쉱 à à 용 ò 임 ò à ò g

Search completed: May 17, 2004, 16:15:45 Job time : 56.8443 secs

# GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

May 17, 2004, 12:11:00 ; Search time 335.298 Seconds (without alignments) 9271.041 Million cell updates/sec Run on:

Title: Perfect score:

US-09-367-052-5 685 1 ccatcctaatacgactcact......gacatcagtcaggggatga 685 Sequence:

IDENTITY NUC Gapop 10.0 , Gapext 1.0 Scoring table:

2947324 seqs, 2269024515 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Published Applications NA:\* Database :

Published Applications Nat.

(gnz\_6/ptodata/1/pubpna/US07 PUBCOMB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US06 NEW PUB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US06 NEW PUB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US06 PUBCOMB.seq:\*
(cgnz\_6/ptodata/1/pubpna/DS07 NEW PUB.seq:\*
(cgnz\_6/ptodata/1/pubpna/DS08 NEW PUB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US08 PUBCOMB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US08\_PUBCOMB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US09\_PUBCOMB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US09\_PUBCOMB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US09\_PUBCOMB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US09\_NEW PUB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US09\_NEW PUB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US09\_NEW PUB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US10B\_PUBCOMB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US10B\_PUBCOMB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US10B\_PUBCOMB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US10B\_PUBCOMB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US10 NEW PUB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US10 NEW PUB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US10 NEW PUB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US60\_NEW PUB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US60\_NEW PUB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US60\_NEW PUB.seq:\*
(cgnz\_6/ptodata/1/pubpna/US60\_NEW PUB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

וניםם		* 5				
NO.	Score	Match	Match Length DB	DB	ID	Description
1	446.8	65.2	1679	13	US-10-211-462-80	Sequence 80, Appl
8	446.8	65.2	1679	13	US-10-181-906-9	
m	446.8	65.2	1679	13	US-10-342-887-912	Sequence 912, App
4	446.8	65.2	1679	13	US-10-151-274-14	Sequence 14, Appl
S	446.8	65.2	1679	13	US-10-172-118-912	912,
9	446.8	65.2	1679	13	US-10-170-385-332	Sequence 332, App
	446.8	65.2	1679	15	US-10-225-567A-75	Æ
œ	446.8	65.2	1679	4	US-10-021-660-58	Sequence 58, Appl
σ	446.8	65.2	1679	16	US-10-341-434-177	177,
10	446.8	65.2	1711	70	US-09-971-392-20	Sequence 20, Appl
11	446.8	65.2		15	US-10-101-510-459	Sequence 459, App
12	445.8	65.1		17	US-10-641-643-1213	Sequence 1213, Ap
13	439.2	64.1		Q	US-09-104-063-3	Sequence 3, Appli
14	439.2	64.1	1737	13	US-10-666-689-3	Sequence 3, Appli

214 63 1, 77 143	000000	Sequence 1235, Ap Sequence 1, Appli Sequence 674, App Sequence 679, App Sequence 687, App	ਜਜ਼ੇ `````	Sequence 5, Appli Sequence 161, App Sequence 154, App Sequence 154, App Sequence 160, App Sequence 2641, Ap Sequence 2641, Ap Sequence 2641, Ap
9 US-09-880-107-2143 10 US-09-960-706-636 11 US-0372-683-1 16 US-10-440-464-77 9 US-09-870-759-143	110 US-09-751-708A-143 111 US-09-826-509-484 13 US-09-813-651B-84 15 US-10-014-322A-125 16 US-10-160-401-2	16 US-10-302-720-1235 16 US-10-160-401-1 15 US-10-101-510-674 15 US-10-101-510-674 16 US-10-292-798-687	9 US-09-953-692-1 12 US-09-953-717-1 12 US-09-997-722-162 15 US-10-251-385-65 15 US-10-251-385-199 US-09-104-063-5	12 US-10-66-689-5 12 US-09-99-722-161 15 US-10-225-567A-59 13 US-10-240-965-154 13 US-09-997-722-160 9 US-09-997-722-160 15 US-10-196-692-2641 15 US-10-040-862-2641 16 US-10-057-475B-2641
1670 1670 1670 1670 1102	111111111111111111111111111111111111111	1225 1225 1225 1024 1076	1902 11119 11119 1679	1679 2824 3011 3620 172 172
63.9 63.9 63.9	66888 6888 6888 6888 6888 6888 6888 68	622.7 622.9 62.0 62.0 62.0 63.0 63.0 63.0 63.0 63.0 63.0 63.0 63	00000000000000000000000000000000000000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
437.6 437.6 437.6 432.6	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	444444 4200 410 410 410 410 410 410 410 410 410 4	11552246 11552246 11552246	1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
116 117 118	010000	0 0 0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	0 000 W W W 4 4 4 4 4 4 C 8 8 0 0 1 1 1 1 1 1 1 1 1

### ALIGNMENTS

To a second		
	С С 1001 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Gaps
	omposition of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the con	1679;
Ċ	genesis (	Length 1679; Indels 5;
	Angloge Anglog	DB 13; e-132; 102;
	8818 or ening fc 1,462 390 025 244	Score 446.8; DB 13 Pred. No. 2.5e-132; 0; Mismatches 102;
211462 11 11 11nc.	of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens of Screens	0
on US/10 00334957 chard ichard usan R. asha	methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of Methods of	65.2%; 83.0%; ative
SULT 1 -10-21-462-80 -10-21-462-80 Sequence 80, Application US/10211462 Publication No. US20040033495A1 GENERAL INFORMATION: APPLICANT: Murray, Richard APPLICANT: Waten, Richard APPLICANT: Waten, Susan R. APPLICANT: Aziz, Natasha APPLICANT: Ecs Biotechnology, Inc.	NTION: TENTION: TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE TO ATTORN THE	Query Match Best Local Similarity 83. Matches 523, Conservative
SULT 1 Sequence 80, Applica Sequence 80, Applica Fublication No. US20 GENERAL INFORMATION: APPLICANT: Mutray, APPLICANT: Watson, APPLICANT: Watson, APPLICANT: Ecs Bio	TITLE OF INVENTION: TITLE OF INVENTION: FILE REFERENCE: 018 CURRENT FILING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PELING DATE: PRICE PE	Match ocal Sir s 523;
RESULT 1 US-10-211-462-80 US-10-211-462-80 PUBLICATION NO GENERAL INFORM APPLICANT: W APPLICANT: W APPLICANT: W APPLICANT: W APPLICANT: W APPLICANT: W APPLICANT: W APPLICANT: W APPLICANT: W APPLICANT: W APPLICANT: E	TITLE OF INVE. FILE REFERENC CURRENT APPLICA CURRENT FILING PRIOR APPLICA PRIOR APPLICA PRIOR APPLICA PRIOR APPLICA PRIOR APPLICA PRIOR FILING PRIOR FILING PRIOR FILING PRIOR FILING PRIOR FILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR PILING PRIOR	Query Mat Best Loca Matches
	,	

44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 103

ŝ

ï

```
127 ceaceaaanececrcaceeerrarcacrccarcaaceaacearcrcrrrrccercaacaaa
                                                                                                                                                                                                                                                                                                              187 IGCTAATTICAATAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                         284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                  427 IGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGGCCTTCATCAGTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  487 CCGCTACCTGGCCATCGTCCACCAACAACAACAAGGCCAAGGAAGCTGTGGA
                             104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                 164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                     224 COTCCATTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                344 GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       307 geacaagracagecrecaccrercageceaccrecrerrareacacerr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       404 CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 367 credecadricareccereccaaacrecrarecariceaaacrirecrarecaaeecaereca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      584 AAAGGCAGTCTAIGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   547 AAAGGIGGICIAIGITGGCGICIGGAICCCIGCCCICCIGCIGACIAIICCCGACITCAI
                                                                                72 gagaaccadcdgraaccardda----gddaarcadrararacacracacaraacracac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 644 CTTTGCCGACGTCAGCCAGGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-342-887-912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                            5 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                쇰
                                                                                                                                                 ò
                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                              \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 9, Application US/10181906
; Sequence 9, Application US/2040053864A1
; Sequence 9, Application No. US20040053864A1
; GENERAL INFORMATION:
    APPLICANT: AAring . Michael
; APPLICANT: Aming . Michael
; APPLICANT: Aming . Michael
; APPLICANT: Ducy, Patrica
; TITLE OF INVENTION: MCDULATION OF NEUROPEPTIDE Y ACTIVITY
; FILE REPERENCE: 9142-020-999
; CURRENT APPLICATION NUMBER: US/10/181,906
; CURRENT PILING DATE: 2001-01-22
; PRIOR FILING DATE: 2001-01-22
; NUMBER OF SEQ ID NOS: 16
; SCOTWARE: PatentIn version 3.0
; SEQ ID NO 9
; LENGTH: 1679
; TURE OF INVENTION TO SERVER IN THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE 
                                                                                                                                                                                                                                                                                                     283
                                                                                                                                                                                                                                                                                                                                                               246
                                                                                                                                                                                                                                                                                                                                                                                                                      284 AGICGCCAAIGGAIITGGIGAICCIGGICAIGGGITACCAGAAGAAGCIAAGGAGCAIGAC 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                307 GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTT 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  427 TGTCATCTACAGTCAACTCTACAGCAGTGTCCTCCATCCTGGCCTTCATCAGTCTGGA 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACGGCTG 103
                                                      104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGTATATACACTTCTGATAACTACTC 163
                                                                                                             72 GAGAACCAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC 126
                                                                                                                                                                                                                                    127 cgaggaaarggggrccaggggacrargacrccargaaggaacccrgrrrccgrgaagaaa 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   247 reredecaredaringercarecredecarederraceagaaderaceagaadeareac 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cresecastricarecterescaaacresractricesaacricerarecaasecactea 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            547 AAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTGCTGCTGACTATTCCCGACTTCAT 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71
                                                                                                                                                                                                                                                                                                                                     TGCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTCATCTTAACTGGCAT
GCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTG
                                                                                                                                                                          164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                  224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TATCATGTACACTGTCAACCTCTACAGCAGCGTTCTCATCTGGCCTTCATCAGGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         487 ccéctracciredecarcerecracecaceacaacaereacageceaagecerera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .;
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 65.2%; Score 446.8; DB 13; Length 1679; Best Local Similarity 83.0%; Pred. No. 2.5e-132; Matches 523; Conservative 0; Mismatches 102; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          644 CTTTGCCGACGTCAGCCAGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cririccca accica crea decada reacado e 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
CORGANISM: Homo sapiens
US-10-181-906-9
                                                                                                                                                                                                                                                                                                                                                               187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 607
12
                                                   à
                                                                                                   8
8
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     සු දු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                        음 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

246 343 403 366 463 426 486

```
KESULT 3
US-10-342-887-912

| Sequence 912, Application US/10342887
| Fublication No. US20040058340A1
| Fublication No. US20040058340A1
| GENERAL INFORMATION:
| APPLICANT: Dai, Hongyue
| APPLICANT: Linsley, Peter S. APPLICANT: Linsley, Peter S. APPLICANT: Wao, Mao. APPLICANT: Van 't Veer, Laura Johanna APPLICANT: Van 't Veer, Laura Johanna APPLICANT: Van 't Veer, Laura Johanna APPLICANT: Van 't Veer, Laura Johanna APPLICANT: Wan 't Veer, Laura Johanna APPLICANT: Wan 't Veer, Laura Johanna APPLICANT: Wan 't Veer, Laura Johanna APPLICANT: Wan 't Veer, Laura Johanna APPLICANT: Wan 't Veer, Laura Johanna APPLICANT: Wan 't Veer, Laura Johanna APPLICANT: Bernards, Rene | FILE REFERENCE: 9301-188-999 | CURRENT FILING DATE: 2003-01-15 | PRIOR APPLICATION NUMBER: 06/289,918 | PRIOR PLILING DATE: 2002-06-14 | PRIOR PLILING DATE: 2002-06-14 | PRIOR PLILING DATE: 2002-06-14 | PRIOR PLILING DATE: 2002-06-14 | WUMBER OF SEQ ID NOS: 2699 | SEQ ID NO 912 | LENGTH: 1679 | TUBENT: 1879 | TUBENT: 1879 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 1870 | TUBENT: 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 13; Length 1679;
607 cirireccaacercaercaecaeareacae 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 446.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65.2%;
```

۲,

Gaps ກ .. 103

163

223

```
127 CGAGGAAATGGGCTCAGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAAAA 186
                                                                                                                                                                                                                                      187 IGCTAATTICAATAAAATCTICCTGCCCACCAICTACTCCATCATCTICTTAACTGGGAT
                                                    44 gchadrachagrapacharancerrerangecerrragracicecrecarnaceacha
                                                                                                                                                                                                                                                                          284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                           247 IGIGGGCAAIGGATIGGTCATCCTGGTCAIGGGTTACCAGAAGAAACTGAGAAGCAIGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                            12 ecgecaddaggraddaagrgacgcdagggccrgagrgcdccagragcdcdcdcdagrr
                                                                                                          104 IAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                164 TGBAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                      224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                       404 CIGGGCAGIIGAIGCCAIGGCIGACIGGIACIIIGGGAAAIIIIIGIGIGIAAGGCIGICCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             487 CCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAGGAGCTGTTGGCTGA
                                                                                                                                                                                                                                                                                                                                344 GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCTT
Query Match
65.2%; Score 446.8; DB 13; Length 1679;
Best Local Similarity 83.0%; Pred. No. 2.5e-132;
Matches 523; Conservative 0; Mismatches 102; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                   367
                                                                                                                                                                                                                                                                                                                                                                                                                                             464
                                                                                                                                                                                                                                                                                                                                                            307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   524
                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                         음
                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                à
                                                                                                                                                                                       셤
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                             ò
                                                                                                 163
                                                                                                                          126
                                                                                                                                                                                 186
                                                                                                                                                                                                           283
                                                                                                                                                                                                                                      246
                                                                                                                                                                                                                                                                 284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC 343
                                                                                                                                                                                                                                                                                           306
                                                                                                                                                                                                                                                                                                                       403
                                                                                                                                                                                                                                                                                                                                                 366
                                                                                                                                                                                                                                                                                                                                                                            463
                                                                                                                                                                                                                                                                                                                                                                                                      426
                                                                                                                                                                                                                                                                                                                                                                                                                                 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                            486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     909
                                                                     71
                                                                                                                                                      187 IGCTAATTICAATAAAATCTICCTGCCCACCATCAACTCCATCATCTTCTTAACTGGCAT
                                                                                                                                                                                                                                                                                 344 GGACAAGTACCGGCTGCACCTGTCAGTGACCTCCTCTTTGTCATCACACTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                             12 GCGGCAGCAGGTAGCAAGTGACGCCCAGAGGCCTGAGTGCTCCAGTAGCCACCCCATCTG
                                                                                                 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                           224 CGTCCATTICAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                       TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGACGCTG
                                                                                                                                                                                                                                                                                                                                                                             CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            584 AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT
                  Gaps
                  ..
21
                  Indels
    Pred. No. 2.5e-132;
0; Mismatches 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITTGCCAACGTCAGTGAGGCAGATGACAG 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTTGCCGACGTCAGCCAGGGGACATCAG 673
    Best Local Similarity 83.0%;
Matches 523; Conservative (
                                                                                                                                                                                                                                                                                                                                                                               404
                                                                                                                                                                                                                                                                                                                                                                                                                                   464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     644
                                                                                                 8
                                                                                                                                                                                g
                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                       ò
                                                                                                                                                                                                                                                                   ઠે
```

343

306 403 426

523 486 583 546 643

463

366

GGACAAGTACAGGCTGCAGTCAGTGGCCGACCTCCTTTGTCATCACGGTTCCCTT

TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA

Sequence 14, Application US/10151274

Sequence 14, Application No. US2030064071A1

Publication No. US2030064071A1

GENERAL INFORMATION:

APPLICANT: Littman, Dan R.

APPLICANT: Wown, Douglas S.

APPLICANT: Vewon, Douglas S.

TITLE OF INVENTION: NETHODS OF USING A FACILITATOR OF RETROVIRAL ENTR:

TITLE OF INVENTION: LELS

TITLE OF INVENTION: CELLS

TITLE OF INVENTION: CELLS

TITLE OF INVENTION: CELLS

TITLE OF INVENTION: LANGER: US/10/151,274

CURRENT APPLICATION NUMBER: US/10/151,274

CURRENT FILING DATE: 2000-05-05-05

PRIOR APPLICATION NUMBER: US/09/517,605

NUMBER OF SEQ ID NOS: 17

SOFTHARE: PATENTIN Ver. 2.0

SEQ ID NO 14

LENGTHRIES

; TYPE: DNA ; ORGANISM: Homo sapiens US-10-151-274-14

909 WESULT 5

US-10-172-118-912

US-10-172-118-912

Sequence 912, Application US/10172118

Publication No. US20030224374A1

GENERAL INFORMATION:
APPLICANT: Dai, Hongyue
APPLICANT: He, Yudong
APPLICANT: Ho, Yudong
APPLICANT: Roberts, Cher
APPLICANT: Roberts, Cher
APPLICANT: Roberts, Cher
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Wan de Vijver, Marc
APPLICANT: Wan de Vijver, Marc
APPLICANT: Wan de Vijver, Marc
APPLICANT: Wan de Vijver, Marc
APPLICANT: Wan de Vijver, Marc
APPLICANT: Wan de Vijver, Marc
APPLICANT: Wan de Vijver, Marc
APPLICANT: Wan de Vijver, Marc
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Wan de Vijver, Marc
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Wan de Vijver, Marc
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Wan de Vijver, Marc
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Bernards, Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
APPLICANT: Ren
A 644 CITIGCCGACGICAGCCAGGGGGACAICAG 673 citigecaacercaercaecaearcaeae 636 TYPE: DNA ORGANISM: Homo sapiens 607

PRIOR APPLICATION NUMBER: PCT/GB02/01662
PRIOR FILING DATE: 2002-04-08
PRIOR PLING DATE: 2002-04-08
PRIOR PLING DATE: 2001-12-10
NUMBER OF SEQ ID NOS: 549
SOFTWARE: PSESERG for Windows Version 4.0
SSO ID NO 332
LENGTH: 1679
TYPE: DNA
CRGANISM: Homo Sapiens
US-10-170-385-332

103

Gaps

.; 2

71

163 126 223

127 cgaggaangggcrcaggggacrargacrccargaaggaacccrgrrccGrgaagaaa 186 284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC 343 367 cheedcherheareccerecchadchechrideeahcritccharechadecherch 426 TATCATCTACACTGTCAACCTGTACAGCGGTTCTCATCCTGGCCTTCATCAGCCTGGA 523 72 GAGAACCAGCGGTTACCATGGA-----GGGGGATCAGTATATACACTTCAGATAACTACAC 44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAACGAACCTGCTTCCGGGATGAAAA CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCCAT 187 récraaritédaraaarcricciécédécaréracrecardaferrerraacregear GGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTCTTTGTCATCACACTCCCTT CTGGGCAGTTGATGCCATGGCTGACTTTGGGAAATTTTTGTGTAAGGCTGTCCA 1679; Length Ouery Match

65.2%; Score 446.8; DB 13; Lengt!

Best Local Similarity 83.0%; Pred. No. 2.5e-132;

Matches 523; Conservative 0; Mismatches 102; Indels ; PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: NM\_003467
DATABASE ENTRY DATE: 2001-06-18
US-10-172-118-912 247 344 307 224 404 464 12 a ò 원  $\dot{\delta}$ g g g g 8 ď 8 ద ठे õ ઠે ò

283 246 306 403 463

CTTTGCCAACGTCAGTGAGGCAGATGACAG 636 607

524

ò ДD ઠે 셤 ò

644 CTTTGCCGACGTCAGCCAGGGGACATCAG 673

584 AAAGGCAGTCTATGTGGGGGGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCAT 643

COSTULING STATE APPLICATION US/10170385
SPUBLICATION NO. US20030203372A1
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Wand, On! Raymond
APPLICANT: Kan, On
APPLICANT: Harris, Robert Alan
APPLICANT: Harris, Robert Alan
APPLICANT: Bailey, Yatie Mary
APPLICANT: Raymor, William Nigel
APPLICANT: Raymer, William Nigel
APPLICANT: Raymer, William Nigel
APPLICANT: Ringeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT: Kingeman, Susart
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICA

103 163 126 223 186 283 246 343 306 403 366 463 426 523 486 583 546 643 547 AAAGGIGGICIATGIIGGGICIGGAICCCIGCCCICCIGCIGACTATICCCGACTICAI 606 71 187 IGCTAATTICAATAAAAICTICCIGCCCACCAICTACTCCAICAICTTTAACTGGCAT 284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC 247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC 367 criedecagricariecegrescaacresracrirescaacrirecrarecaassecea TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA 584 AAAGGCAGTCTATGTGGGGGGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCAT 12 śceścaścadatadzaadreaceceaagecreadrecreadraceacacecerere 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCAT GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTT 404 CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGGAAATTTTTGTGTAAGGCTGTCA Gaps 'n Length 1679 Indels Query Match
65.2%; Score 446.8; DB 13;
Best Local Similarity 83.0%; Pred. No. 2.5e-132;
Matches 523; Conservative 0; Mismatches 102; CTTTGCCGACGTCAGCCAGGGGACATCAG 673 644 607 464 344 ò 엄 a 8 8 ò g ઠે 셤 a 8 8 ઠ 음 셤 à 임 ò ò ઠે ઠ

RESULT 7

US-10-225-567A-75

US-10-225-567A-75

Sequence 75, Application US/10225567A

Publication No. US20030113798A1

GENERAL INFORMATION:

APPLICANT: LifeSpan Biosciences

APPLICANT: Burmer, Gleena C.

APPLICANT: Burmer, Gleena C.

APPLICANT: Roush, Christine L.

TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS

FILE REPERENCE: 1220-4-4

CURRENT APPLICATION NUMBER: US/10/225,567A

```
۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   546
                                                                                                                                                                                                                                         103
                                                                                                                                                                                                                                                                                                     163
                                                                                                                                                                                                                                                                                                                                   126
                                                                                                                                                                                                                                                                                                                                                                  223
                                                                                                                                                                                                                                                                                                                                                                                                 186
                                                                                                                                                                                                                                                                                                                                                                                                                                283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    583
                                                                                                                                                                                                                                                                     7
                                                                                                                                                                                                                                                                                                                                                                                                                                                    187 IGCTAATITICAATAAAAATCTICCTGCCCACCAICTACTCCATCATCTICTITAACIGGCAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   547 AAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCAT
                                                                                                                                                                                                                                                                                                     104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                                        127 CGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              307 GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTTGGGAAATTTTTTGTGTAAGGTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COGGIACCICGCCAITGICCACGCCACCAACAGICAAAGGCCCAAGGAAACIGCIGGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    487 ccgcraccraccarcarcaccaccaccacaacacraagagaccaagaagcrarragcraa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  584 AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCGTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                         44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                                                     ecedenachedahadenandangecedaddecrigadirectedadinacenedaenerid
                                                                                                                                                                                                                                                                                                                                                                   TGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCTTT
                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                           5,
                                                                                                                                                                            Length 1679;
                                                                                                                                                                                                         Indela
                                                                                                                                                                            DB 15;
                                                                                                                                                                           Score 446.8; DB 15;
Pred. No. 2.5e-132;
0; Mismatches 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               crirideceacercaercaeceacardacae 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTTGCCGACGTCAGCCAGGGGGACATCAG
CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION UNDBR: 60/257,144
PRIOR FILING DATE: 2000-12-19
NUMBER OF SEQ ID NOS: 2292
SOFTWARE: Petentin version 3.1
SEQ ID NO 75
LENGTH: 1679
                                                                                                                                                                         Ouery Match 65.2%;
Best Local Similarity 83.0%;
Matches 523; Conservative
                                                                                                             TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                            US-10-225-567A-75
                                                                                                                                                                                                                                                                     12
                                                                                                                                                                                                                                                                                                                                   72
                                                                                                                                                                                                                                                                                                                                                                  164
                                                                                                                                                                                                                                                                                                                                                                                                                                 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                         ò
```

```
Sequence 177, Application US/10341434
Publication No. US20030215835A1
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Differentially Regulated Prostate Cancer Genes
FILER REFERENCE: 9U 204 205 R1
CURRENT APPLICATION NUMBER: US/10/341,434
CURRENT FILING DATE: 2003-07-18
                                                                                                                             US-10-341-434-177
                                              Sequence 58, Application US/10021660
Publication No. US20030152926A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Without APPLICANT: Glynne, Richard
APPLICANT: Glynne, Richard
APPLICANT: Glynne, Richard
APPLICANT: Glynne, Richard
APPLICANT: Good Selection of Selection of TITLE OF INVENTION: Compositions and Methods of Diagnosis of Angiogenesis, TITLE OF INVENTION: Compositions and Methods of Screening for Angiogenesis FILE REFERENCE: 018501-000710US
RESULT 8
US-10-021-660-58
```

```
ã
                                                                                                                                                                       163
                                                                                                              103
                                                                                                                                                                                                 126
                                                                                                                                                                                                                                                                                                                  246
                                                                                                                                                                                                                                                                                                                                               343
                                                                                                                                                                                                                                                                                                                                                                                                      403
                                                                                                                                                                                                                                                                                                                                                                                                                                    366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        643
                                                                                                                                                                                                                              223
                                                                                                                                                                                                                                                         186
                                                                                                                                                                                                                                                                                     283
                                                                                                                                                                                                                                                                                                                                                                         306
                                                                                                                                                                                                                                                                                                                                                                                                                                                               463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  909
                                                                                                                                         71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         427 TGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCATCAGGAGTGTCTGGA
                                                                                                                                                                                                                              127 CGAGGAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAA
                                                                                                                                                                                                                                                                                                      187 IGCTAATTICAATAAATCTICCTGCCCACCATCTACTCCATCTTCTTAACTGGGAT
                                                                                                                                                                                                                                                                                                                                                                  247 IGIGGGCAAIGGAIIGGTCAICCIGGICAIGGGTIACCAGAAGAAACIGAGAAGCAIGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CIGGGCAGTIGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGCTACCTGGCCATCGTCCACGCCACAACAGTCAGAGGCCAAGGAAGAACTGTTGGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                       104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                         GAGAACCAGGGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC
                                                                                                                                                                                                                                                                                                                                               AGTOGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                        GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                          GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGGGCAGTTGATGCCATGGTGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 584 AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT
                                                                                                                                        GCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTG
                                                                                                                                                                                                                                                                                     224 CGICCATTICAATAGGAICTICCIGCCCACCATCTACTICATCATCTICTIGACTGGCAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                  'n.
                                                        Length
                                                                                  Indels
                                                     Query Match
65.2%; Score 446.8; DB 15;
Best Local Similarity 83.0%; Pred. No. 2.5e-132;
Matches 523; Conservative 0; Mismatches 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTTGCCGACGTCAGCCAGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            607 ciririsccaacsicastrasses 636
TYPE: DNA
ORGANISM: Homo sapiens
US-10-021-660-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  644
                                                                                                                                             12
                                                                                                                                                                                                                                                                                                                                                 284
                                                                                                                                                                                                                                                                                                                                                                                                           344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              487
                                                                                                                                                                                                    72
                                                                                                                                                                                                                                                                                                                                                                                                                                     307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  524
                                                                                                                                         ద
                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                        ò
                                                                                                                                                                                               g
                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
```

CURRENT FILING DATE: 2001-12-06
PRIOR APPLICATION NUMBER: US/09/784,356
PRIOR PILING DATE: 2001-02-14
PRIOR APPLICATION NUMBER: US 09/637,977
PRIOR FILING DATE: 2000-08-11
NUMBER OF SEQ ID NOS: 135
SOFTWARE: FREESEQ for Windows Version 3.0
LENGTH: 1679

CURRENT APPLICATION NUMBER: US/10/021,660

10.01

٠ د

```
Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTCATAACTACTC 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTCATCTACACACTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGA 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         127 cdagdaardddcrcaddddacrcardacrccargaaddaacccrcrriccgrdaadaaa 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              367 chadacaarhaaraccaraachaararaachaararhaadaachhacharacaaadaachaa 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     187 IGCTAATTICAATAAAATCTICCTGCCCACCATCATCTACTICTTAACIGGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCGCCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               307 GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTGTTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     584 AAAGGCAGTCTATGTGGGGGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     72 GAGAACCAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGGGCAGTTGATGCCATGGCTGACTTTGGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TATCATCTACACTGTCAACCTCTACAGCGGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 16; Length 1679;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match

Best Local Similarity 83.0%; Pred. No. 2.5e-132;
Matches 523; Conservative 0; Mismatches 102; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTTGCCGACGTCAGCCAGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cririccca a cerca e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e a casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa e casa
PRIOR APPLICATION NUMBER: US 60/348,164
PRIOR FILING DATE: 2002-01-15
PRIOR PILING DATE: 2002-01-15
PRIOR FILING DATE: 2002-01-15
NUMBER OF SEQ ID NOS: 238
SOFTWARE: Patentin version 3:1
SEQ ID NO 177
LENGTH: 1679
                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                       . NAME/KEY: CDS
; LOCATION: (89)..(1144)
; OTHER INFORMATION:
US-10-341-434-177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       607
                                                                                                                                                                                                                                                                                                  TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

DIFFERENTIATION

REGULATED IN DENDRITIC CELL

TITLE OF INVENTION: GENES REGULATED IN DENDR PILE REPERENCE: PA-0029 US CURRENT APPLICATION NUMBER: US/09/971,392 CURRENT FILING DATE: 2001-10-03 PRIOR APPLICATION NUMBER: 60/237,652 PRIOR FILING DATE: 2000-10-03 NUMBER OF SEQ ID NOS: 260 SOFTWARE: PERL PROGram

NAME/KEY: misc feature OTHER INFORMATION: Template ID: 284616.2 NAME/KEY: unsure

TYPE: DNA ORGANISM: Homo sapiens

FEATURE:

SEQ ID NO 20

```
106
                                                                                                                                                                                                                               163
                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                        223
                                                                                                                                                                                                                                                                                                                                            221
                                                                                                                                                                                                                                                                                                                                                                                  283
                                                                                                                                                                                                                                                                                                                                                                                                                    281
                                                                                                                                                                                                                                                                                                                                                                                                                                                             343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              641
                                                                                                                                                                                     47 GCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACGGATCTG
                                                                                                                                                                                                                                                               107 gagaaccagcggrraccardga-----ggggarcagrararacacrrcagaraacracac
                                                                                                                                                                                                                                                                                                                          162 CGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                  224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTTTTTGACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                        222 TGCTAATTTCAATAAAATCTTCCTGCCCACCATCAATCTCATCTTCTTAACTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGGTAAGGAGCATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               282 reredecharcearrecterrecreterrederraceacheahaahacreheahecheake
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         342 GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 584 AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT
                                                                                                                                                     44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGGCTG
                                                                                                                                                                                                                               104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                                                                                                                                                                                                                                                                        164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  402 CTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        464 TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          462 TGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGCAGTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     582 AAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     344 GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTT
                                                                                                              Gaps
                                                                                                              ŝ
                                                                                                                Indels
                                                                            DB 10;
                                                                        Query Match 65.2%; Score 446.8; DB 10; Best Local Similarity 83.0%; Pred. No. 2.5e-132; Matches 523; Conservative 0; Mismatches 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    644 CTTTGCCGACGTCAGCCAGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    citifeccaacetcaereaecaeargacae 671
                      or other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
US-10-101-510-459
Sequence 459, Application US/10101510
; Publication No. US20030148295A1
                        Ď
CCATION: 1706
CTHER INFORMATION: a, t, c,
US-09-971-392-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              404
                                                                                                                                                                                   g
                                                                                                                                                       ð
                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   염
```

Sequence 20, Application US/09971392
Publication No. US20030134283A1
GENERAL INFORMATION:
APPLICANT: Peterson, David P.
APPLICANT: Peterson, Cecelia I.
APPLICANT: Cocks, Benjamin G.

RESULT 10 US-09-971-392-20

106 163 161 223 221 283 281 343 403 401 463 461 523 521 583 581 641 282 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAAACTGAGAAGCATGAC 341 582 AAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCCCCTGCTGACTATTCCCGACTTCAT 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 107 GAGAACCAGCGGTTACCATGGA----GGGGATCAGTATATACACTTCAGATAACTACAC 164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAA CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT 222 TGCTAATTTCAATAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCAT TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA TGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGA 584 AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT 44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 162 cchechantecerreneegacthreactecarchadaacanerrentecerchanaa 284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC 344 GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTT CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA 100 CTGGGCAGTTGATGCCGTGGCAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA 522 ccigcriaccingccarcercaceccaccaacacicagageccaaggaagcigringecida Score 446.8; DB 15; Length 1711; Pred. No. 2.5e-132; 0; Mismatches 102; Indels 5; ŝ Ö g, other or unknown APPLICANT: WAN, JACKSON
APPLICANT: WANG, XIXIN
TILE OF INVENTION: EXPRESSION PROFILES AND MET
FILE REFERENCE: 1517, 0012
CURRENT APPLICATION NUMBER: US/10/101,510
CURRENT APPLICATION NUMBER: 00/276,947
PRIOR APPLICATION NUMBER: 60/276,947
PRIOR FILING DATE: 2001-03-20
NUMBER OF SEQ ID NOS: 805
SOFTWARE PATENTIN OF 11 CTTTGCCGACGTCAGCCAGGGGGACATCAG 673 CTTTGCCAACGTCAGTGAGGCAGATGACAG Query Match
Best Local Similarity 83.0%;
Matches 523; Conservative ΰ NAME/KEY: modified base LOCATION: (1706) CHER INFORMATION: a, t, US-10-101-510-459 TYPE: DNA ORGANISM: Homo sapiens FEATURE: GENERAL INFORMATION 644 224 342 404 464 462 642 à ò g à d ò d ò g ò g à 8 셤 ઠ

116 225 285 원 ઠે 셤 g ጵ g à ઠે ò

US-10-641-643-1213 ; Sequence 1213, Application US/10641643

104 284 344 404 GACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTC 105 AGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCT 165 GAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAAC GICCATITICAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATA 176 GCTAATTTCAATAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCATT GTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACG GTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGGCATGACG GACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTC 45 CAGGIGCAGGIAGCAGIGACCCICTGAGGCGITTTGGIGCTCCGGIAACCACCACGGCTGI 1 cedenaceaceanaceana de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la co THE DETECTION OF BLOOD CELL Query Match 65.1%; Score 445.8; DB 17; Length 1664; Best Local Similarity 83.0%; Pred. No. 5.2e-132; Matches 522; Conservative 0; Mismatches 102; Indels 5; COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
COMPUTER: IEM PC compatible
COMPUTER: IEM PC compatible
COMPUTER: IEM PC compatible
COMPUTER: IEM PC compatible
COMPUTER: Word Perfect 6.1 for Windows/MS-DOS 6.2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/641,643
FILING DATE: 14-Aug-2003
CLASSIFICATION NUMBER: CUNROWN>
APPLICATION NUMBER: CUNROWN>
ATTORNEY/AGENT INFORMATION:
NAME: Zeller: Karen
REGRERATION NUMBER: 37,071
REGRERATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-0001 US CORRESPONDENCE ADDRESS:
ADDRESSES: INCYTE PHARMACEUTICALS, INC STREET: 3174 PORTER DRIVE CLONE: 9219868

SEQUENCE DESCRIPTION: SEQ ID NO: 1213 :
US-10-641-643-1213 Publication No. US20040077003A1
GENERAL INFORMATION:
Cocks, Benjamin G.
Susan G. Stuart
Jeffrey J. Seilhamer
Jeffrey J. Seilhamer
TITLE OF INVENTION: GENE EXPRESSION TELEPHONE: (650) 845-0555
TELEPAX: (650) 845-4166
INFORMATION FOR SEG ID NO: 1213:
SEQUENCE CHARACTERISTICS:
LENGTH: 1664 base pairs TELECOMMUNICATION INFORMATION: NUMBER OF SEQUENCES: 1508 TYPE: nucleic acid STRANDEDNESS: single STATE: CALIFORNIA TOPOLOGY: linear IMMEDIATE SOURCE: CITY: PALO ALTO COUNTRY: USA 236 345 ద à

```
415
                                                                       524
                                                                                                          416 gicarciacacagicaacciciacagcagigicicicaicciggccircaicagiciggac 475
                                                                                                                                                 584
                                                                                                                                                                                     AAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCGACTATACCTGACTTCATC 644
                                                                                                                                                                                                                                                                 595
                                                                                                                                                                                                                                                           536 AAGGIGGICHAIGITGGCGICHGGAICCCHGCCHCCHGCHGACTAITCCCGACTICAIC
TGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCAT
                        465 ATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGAC
                                                                                                                                                   MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech) CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/104,063 FILLIO DATE: 24-June-1998
                                                                                                                                                                                                                                                                                                        645 TTTGCCGACGTCAGCCAGGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                             596 rrieccaacercaercaecaeareacae 624
                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 3, Application US/09104063
Patent No. US20020168356A1
GENERAL INFORMATION:
APPLICANT: Wood, William I.
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 4-70HR-1596
FILING DATE: 4-70HR-1596
PRIOR APPLICATION DATA: 94701265
FILING DATE: 22-AUG-1996
PRIOR APPLICATION DATA: 4PPLICATION NUMBER: 08/664228
FILING DATE: 06-70H-1996
PRIOR APPLICATION DATA: 08/076093
FILING DATE: 11-70H-1993
PRIOR APPLICATION DATA: 08/076093
FILING DATE: 11-70H-1993
PRIOR APPLICATION DATA: 07/010782
FILING DATE: 19-DEC-1991
ATTONEY AGENT THORMATION: NAME: LOVE, Richard B.
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: P0706P2
TELECHONE: 415/225-5530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
THENGTH: 1737 hard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Genentech, Inc.
STREET: 1 DNA Way
STRE South San Francisco
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: Nucleic Acid
STRANDEDNESS: Single
TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 incl
  405
                                                                                                                                                                                                                                585
                                                                                                                                                   525
                                임
                                                                       ઠે
                                                                                                          q
                                                                                                                                                                             셤
                                                                                                                                                 ò
                                                                                                                                                                                                                            ਨੇ
                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                      8
```

```
109
                                                                                                                                                                         169
                                                                                                                                                                                                                                                       134
                                                                                                                                                                                                                                                                                                                                               229
                                                                                                                                                                                                                                                                                                                                                                                                                                      194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         614
                                                                                  79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Lee, James
APPLICANT: Mood, William I.
TILLE OF INVENTION: Human PF4R Receptors, Nucleic Acid Encoding and
TITLE OF INVENTION: Actibodies Binding Thereto
TITLE OF INVENTION: Actibodies Binding Thereto
TITLE OF INVENTION: Actibodies Binding Thereto
CURRENT PRICE POTOGEOCODIC
CURRENT APPLICATION NUMBER: US/10/666,689
CURRENT FILING DATE: 1088-06-19
PRIOR FILING DATE: 1988-06-24
PRIOR FILING DATE: 1988-06-24
PRIOR PILING DATE: 1996-08-06-06
PRIOR PILING DATE: 1996-06-06
PRIOR FILING DATE: 1996-06-06
PRIOR FILING DATE: 1996-06-06
PRIOR FILING DATE: 1991-06-11
PRIOR FILING DATE: 1991-06-11
                                                                                                                                                                                                                                80 CAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACACAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         195 ITTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTTTTAATAAACTGGCATTGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  290 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     255 caaredarregrearceregrearegerraceagaagaagreagaagearegeere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        410 AGTIGAIGCCAIGGCIGACTGGIACTTIGGGAAATTITIGIGIAAAGGCIGICCAIAICAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  375 AGITGALGCCGIGGCAAACTGGTACTTGGGAACTTCCTATGCAAGGCAGTCCATGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     435 cracacacacacercracacacacacacercracacerracacerracacero
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       590 AGICTATGIGGGCGTCIGGAICCCAGCCCICCTGACTAIACCIGACTICAICTITGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    555 GGTCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGATGTTCCCGACTTCATGTTGC
                                                                                                                                                                                                                                                                                                                                               170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                 135 Aariedecricadecearchardacriccardaadaaacccrierriccerdaadaaaaarecraa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITCAAIAGGAICTICCIGCCCACCAICTACTICAICAICTICTIGACTGGCAIAGICGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        350 GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      315 gracaegerecaecreteareseceaecrecretrifereareaegerrecerreses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  470 CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC
                                                                                       20 cceccecciciana con con con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato con contrato contrato con contrato con contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato contrato co
                                                                                                                                                                              110 GAGIGITGCCATGGAACCGATCAGTGTGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         650 CGACGTCAGCCAGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       615 caacgreagacagargacag 638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 3, Application US/10666689; Publication No. US20040037830A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
             ò
                                                                                                                                                                              8
                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                  ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

Gaps

ŝ

64.1%; Score 439.2; DB 9; Length 1737; 82.7%; Pred. No. 7e-130; ive 0; Mismatches 103; Indels 5;

Query Match Best Local Similarity 82.73 Matches 516; Conservative

US-09-104-063-3

```
169
                                                                                                                                                                                                                                                                                                                                 229
                                                                                                                                                                                                                                                                                                                                                                                               289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  649
                                                                                                                                                                                                                                                                                                   134
                                                                                                                                                                                                                                                                                                                                                                 194
                                                                                                                                                                                                                                                                                                                                                                                                                            254
                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGACAA 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              614
                                                                                                                                                                                                                                     79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CANTGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCATCAGTCTGGACCGCTA
                                                                                                                                                                                                       50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACGACGGCTGTAGAGC
                                                                                                                                                                                                                                                                     110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                              135 Aarigeigericagigeigentarigacriccargaagigaacccrigririccergaagaaaardcraa
                                                                                                                                                                                                                                                                                                                                                                                                                  TITCAAIAAAATCIICCIGCCCACCATCTACICCATCATCATCTTAACIGGCATIGIGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTIGATGCCATGGCTCACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      375 Adridandecenedezaacnegraciniegaacniecrangeaageageeareican
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTGGCCATCGTCCACGCCACCAACAGTCAGAGGAAGCTGTTGGCTGAAAAGGT
                                                                                                                                                                                                                                   GOGOGOGOAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAAC
                                                                                                                                                                                                                                                                                                   80 cadederraceardea-----Gegearcadrararacacricadaraacracedeada
                                                                                                                                                                                                                                                                                                                                   AGTGGGGTCTGGAGTATGACTCCAACAAGGAACCTGCTTCCGGGATGAAAACGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                 TTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGG
                                                                                                                                                                          Gaps
                                                                                                                                                                          ٠.
ش
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2143, Application US/09880107

Patent No. US20020142981A1

GENERAL INFORMATION:
APPLICANT: Wockley, Joseph G.
APPLICANT: Scherf, Uwe
APPLICANT: Gene Logic, Inc.
TITLE OF INVENTION: Gene Expression Profiles in Liver Cancer
FILE REFERENCE: 44921-5028-WO
CURRENT APPLICANTON NUMBER: US/09/880,107

CURRENT FILING DATE: 2001-06-14

PRIOR FILING DATE: 2000-06-14
                                                                                                                                           Length
                                                                                                                                           Score 439.2; DB 13; Length
Pred. No. 7e-130;
0; Mismatches 103; Indels
PRIOR APPLICATION NUMBER: US 07/677,211
PRIOR FILING DATE: 1991-03-29
NUMBER OF SEQ ID NOS: 6
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             caacercaercaecaearcaeae 638
                                                                                                                                         ccn 64.1%;
al Similarity 82.7%;
516; Conservative
                                                                             ; TYPE: DNA
; ORGANISM: Homo sapien
US-10-666-689-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-880-107-2143
                                                               LENGTH: 1737
                                                                                                                                           Query Match
Best Local S:
Matches 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                               290
                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                   170
                                                                                                                                                                                                                                                                                                                                                                                                 230
                                                                                                                                                                                                                                                                                                                                                                                                                               195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 650
                                                                                                                                                                                                                                                                     \dot{\delta}
                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      台
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

```
125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           253 creercareserraccasaasaasaacreasaaceareaceaceacaacaacaaccacecee 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              313 TCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCA 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 493 GCCACCAACAGTCAGAGGCCAAGGAGGTGCTGGCTGAAAAGGTGGTCTATGTTGGCGTC 552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCT 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGGCG 665
                                                                                                                                                                                                                                                                                                                                                    77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCACCAACAGTCAAGGCCAAGGAAACTGCTGGAAAAGGCAGTCTATGTGGGGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTG
                                                                                                                                                                                                                                                                                  66 CTCTGAGGCGTTTGGTGCTCCGGTAACCACCGCCTGTAGAGCGAGTGTTGCCATGGAA
                                                                                                                                                                                                                                                                                                                                                            18 cecceádesecricaciócicaciációcácicamentes de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración de contratoración d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----- Gegearcagrararacacricagaraacracaccaagaaaragacricagaaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     246 CIGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGGCAATGGATTGGTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               crecceaccarcracrecarcarcriterracrescarrerescarrescarresarres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    426 GACTGGTACTTTGGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      373 AACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATGTACACAGTCAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            486 TACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                              126 CCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGAC
                                                                                                                                                                                                    5,
; OTHER INFORMATION: Genbank Accession No. US20020142981A1 L06797
US-09-880-107-2143
                                                                                                                           Length 1670;
                                                                                                                                                                                                    Indels
                                                                                                                      Query Match 63.9%; Score 437.6; DB 9;
Best Local Similarity 83.7%; Pred. No. 2.2e-129;
Matches 509; Conservative 0; Mismatches 94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Search completed: May 17, 2004, 22:14:06 Job time : 337.298 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     613 GATGACAG 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       666 GACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            546 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78
                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

60/237,054

PRIOR APPLICATION NUMBER: US 60,
PRIOR FILING DATE: 2000-10-02,
NUMBER OF SEQ ID NOS: 3950
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 2143
LENGTH: 1670

ORGANISM: Homo sapiens FEATURE:

TYPE: DNA

CF540844 UI-M-GWO-BEG27479 UI-M-GWO-BEG27479 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-SD019 UI-

```
Mus musculus (house mouse)

Mus musculus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

1 (Dases 1 to 966)

S NIH-MCC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: ogaphs-remail.nih.gov

Tissue Procurement: The Cepko Laboratory

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

Http://image.llnl.gov. c column: 07

High quality sequence stop: 668.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BU523025

AGENCOURT 10154335 NCI CGAP CO24 Mus musculus cDNA clone
IMAGE:6529663 5', mRNA sequence.
BG173867
BC540844
BC513842
BC513842
BC0931953
BC09387369
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
BC101953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BI756157
BU945383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BX397685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BU523025.1 GI:22833475
 443
442.4
442.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 441.6
440.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44344
4339.4
4337.6
436.2
436.2
436.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 1
BU523025
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
   BU523025 AGENCOURT
BG174412 602334232
BG915636 602814106
AW227957 up19e03.y
                                                                                                         May 17, 2004, 05:50:31 ; Search time 1977.17 Seconds (without alignments) 10345.919 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                     US-09-367-052-5
685
1 ccatcctaatacgactcact......gacatcagtcaggggatga 685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Description
                                                                                                                                                                                                                                                                                                                         55026578
               GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                       27513289 segs, 14931090275 residues
                                                                                                                                                                                                                                                                                                                  hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                         OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BU523025
BG174412
BG915636
AW227957
                                                                                                                                                                                                                                       IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          em_gas_hum:
em_gas_hum:
em_gas_linv:
em_gas_linv:
em_gas_hut:
em_gas_mus:
em_gas_pas_i:
em_gas_pas_i:
em_gas_pas_i:
em_gas_pas_i:
em_gas_pas_i:
em_gas_pas_i:
em_gas_pas_i:
em_gas_pas_i:
                                                                                                                                                                                                                                                                                                                                                      length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             em_estba:*
em_estin:*
em_estin:*
em_estin:*
em_estin:*
em_estil:*
em_estil:*
gp_esti:*
gp_htc:*
gp_est2:*
gp_est2:*
gp_est4:*
gp_est4:*
gp_est4:*
em_estfun:*
em_estfun:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  906
958
753
628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88.9
88.5
86.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of
                                                                                                                                                                        Title:
Perfect score:
                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score
                                                                                                                                                                                                                                                                                                                                                    Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  608.8
606.4
590
576.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database :
                                                                                                                                                                                                        Sequence:
                                                                                                                                                                                                                                                                                       Searched:
                                                                                                           Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     М
М
```

ALIGNMENTS

a

```
The muserular state of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xrrf="taxxn:10090"
/clone="IMAGR:4457694"
/tissue_type="tumor, blopsy sample"
/dev_stage="10 months, virgin"
/dev_stage="10 months, virgin"
/lab_host="nHil0B"
/clone_lib="NCI_CGAP_Manl"
/note="Organ: mammary; vector: pCMV-SPORT6; Site_1: Sall;
/site_2: Not1; Cloned unidirectionally. Primer: Oligo dT.
Library constructed by Life Technologies. Investigator
providing samples: Gilbert Smith, NIH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 GTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 GGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 GGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGACGACAAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 CGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCATTGTCCACGCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGTGGCTGAAAAGGCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGCGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  114 GITGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   294 GGATTGGTGATCCTGGTCATGGGTTACCAGAAGCTTAAGGAGCATGACGGACAAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATGCCATGGCTGACTGGTACTTTGGGAAA-TTTTGTGTAAGGCTGTCCATATCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGCTGTAGAGCGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    174 GGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATAGGATCTTCCTGCCCACCATCTTCTTCATCATCTTCTTGACTGGCATAGTCGGCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 AATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         / Match 88.5%; Score 606.4; DB 12; Length 958; Local Similarity 99.5%; Pred. No. 3.4e-136; nes 629; Conservative 0; Mismatches 1; Indels 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
     ORGANISM
                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                            /db_xref="taxon:10090"
/clone="lukAGE:623663"
/lab_host="bMCB(51)#0406 (TI)#04064="blost="bMCB(51)#054"
/note="lorgan: colon; Vector; pCMV.SPORT6; Site_1: Not1;
Site_2: Sall; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.6 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
                                                                                                                                                                                                                                                                                                                                                                                                                  ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bp mRNA linear EST 06-FEB-2001
s musculus cDNA clone IMAGE:4457694 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       232 TCAATAGGATCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATGGCGGCA 291
175 TCAATAGGATCTTCCTGCCCACCATCATTCATCATCTTGACTGGCATAGTCGGCA 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  295 ACCGGCTGCACTGTCAGTGGCTGACCTCTTTGTCATCACACTCCCCTTCTGGGCAG 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 355 TIGATGCCAFGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCT 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              415 ACACTGTCAACACTCTACAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACC 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GIGITGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         115 TGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTATGTGGGGGGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                              52 AGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACGACGGCTGTAGAGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 GTGTTCCCATGGAACGGATC----AGTATATACACTTCTGATAACTACTGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         292 ATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     235 ATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGACAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESCIBERCTERCAGIGGCIGACCICCTTITGICACACACICCCCTTCIGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TIGATGCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACACTGTCAACCTCTACAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                            Query Match 88.9%; Score 608.8; DB 13; Length 906; Best Local Similarity 98.7%; Pred. No. 8.6e-137; Matches 626; Conservative 0; Mismatches 2; Indels 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACGTCAGCCAGGGGACATCAGTCAGGGGGGGATGA 685

    .906
    /organism="Mus musculus"
/mol_type="mRNA"
    /strain="FVB/N"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BG174412

60234222F1 NCI_CGAP_Mam1 Mus mumRNA sequence.

BG174412

BG174412.1 GI:12681115

EST. musculus (house mouse)
iocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 2
BG174412
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
FEATURES
                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

ά, 113

Gaps

,, ,,

173 120 233 180 293 240 353 300 413 360 473 419 533 479 593

	230 TTTCAATAGGAT		350 GTACCGGCTGCA              310 GTACCGGCTGCA	410 AGTIGATGCCAT	470 CTACACTGTCAA 	529 ACCTCGCCATTG	588 GCAGTCTATGTG		609 GCCGACGTCAGC	AW227957 N up19e03.y1 NCI similar to 9b:			Mammalia; Buth  (bases 1 to  NCI-CGAP http:	Turbur Gene Ind Unpublished (1 Contact: Rober Email: cgapbs- Tissue Procure Ph.D.	CDNA Library DNA Sequencin Clone distrib found through	MGI:1032960 Seq primer: -4		/ moral / db x / clon
	& g	ζ O	λ δ	Qy Db	Qy QD	çç, qa	ço, qa	λŏ	qq	RESULT 4 AW227957 LOCUS DEFINITION	ACCESSION	KENGTON KEYWORDS SOURCE ORGANISM	REFERENCE AUTHORS	JOURNAL			FEATURES source	
SO GECATIGICEACGCCACCAAGGCCAAGGAACTGCTGGAAAGGCAGTC 539	594 TAIGEGGGGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGAC	DD 540 IAIGIGGGGGGGGACCCICCICCICCICAGATACCIGACTTCATCTTTGCCGAC 598 OY 654 GTCAGCCAGGGGGACATCAGTCAGGGGATGA 685	RESULT 3	LOCUS  BG915636  753 bp mRNA linear EST 05-UUN-2001  DEFINITION 602814106F1 NCI_CGAP_Mam4 Mus musculus cDNA clone IMAGE:4936465 5',  MRNA sequence.  ACCESSION BG915636	VERSION BG915636.1 GI:14296112 KEYWORDS BST. SOURCE Mus musculus (house mouse)		TITLE National Intellutes of Health, Mammalian Gene Collection (MGC) JOURNAL Unpublished (1999) COMMENT Contact: Robert Strausberg, Ph.D.	Tissue Procurement Lothar Hunighausen Ph.D., Priscilla Furth Ph.D. D. D. D. D. D. D. D. D. D. D. D. D.	CDNA LIBRATY Freparation: Life Technologies, Inc. CDNA Library Arrayed by: Im.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc.		FEATURES LOCATION/QUALITIEFS SOURCE 1 .753	/mol type="myNA" /etrain="NMRI" /db.xref="taxon:1000" /-Jone="TMAGE:493646"	/tissue_type="tumor, gross tissue" /dev_stage="5 months" /lab_host="bathoster" /lab_noster_bullow mand"	/note="Organ: mammary" Vector: pCMV-SPORT6; Site 1: Sall; Site 2: Not1; Cloned unidirectionally. Primer: Oligo dT. Library constructed by Life Technologies. Investigators providing samples: Lothar Hennighausen/Priscilla Furth, NIH Reference for transgenic model: Li et al., Cell Growth and Differentiation 7, 3-11 (1996)."	Query Match Best Local Similarity 98.7%; Pred. No. 2.9e-132; Matches 626; Conservative 0; Mismatches 5; Indels 3; Gaps 3;	QY         50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 109	OY 110 GAGTGTTGCCATGGAACGGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA 169	Oy 170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAACGTCCA 229 

g G

```
628 bp mRNA linear EST 10-DEC-1999 CI_CGAP Mam4 Mus musculus cDNA clone IMAGE:2654812 5' D:IO6797 PROBABLE G PROTEIN-COUPLED RECEPTOR LCR1 AN);, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   / Preparation: Life Technologies, Inc.
/ Arrayed by: The I.M.A.G.E. Consortium (LLNL)
ling by: Washington University Genome Sequencing Center
ling by: Washington University Genome Sequencing Center
lbution: NCI-CGAP clone distribution information can be
1 the I.M.A.G.E. Consortium/LLNL at:
gov/bbrp/image/image.html
                                                                                                                                                                                 409
                                                                                                                                                                                                                                                                          469
                                                                                        349
                                                                                                                 309
289
                                                                                                                                                                                                                                369
                                                                                                                                                                                                                                                                                                                       428
                                                                                                                                                                                                                                                                                                                                                                   AACCTCTACAG-CAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGT 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             itazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
heria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
o 628)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 >://www.ncbi.nlm.nih.gov/ncicgap.
ser Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                             ACCTGTCAGTGGCTGACCTCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     regecgrongaroccagaccrccrccrgacraraccrgacrrc
                                                                                                                                                                                                                                                                                                      ATGGCTGACTGGTACTTTGGGAAA-TTTCGTGTAAGGCTGTCCATATCAT
VICTICCIGCCCACCATCIACTICATCATCTTCTTGACTGGCATAGTCGG
                                          Arctrocreccaccarcracricarcarcricarcreacrescarastes
                                                                                        STGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
                                                                                                                                                                                 PACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGC
                                                                                                                                                                                                                                                                             MGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rt Strausberg, Ph.D.
-romail.nih.gov
ement: Lothar Hennighausen Ph.D., Priscilla Furth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAGGGGACATCAGTCAGGGG 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCCAGGGGACATCAGTCAGGGG 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ganism="Mus musculus"

1 type="mRNA"

rain="MNRI"

xref="taxon:10090"

ore="IMAGE:2654812"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40RP from Gibco
sequence stop: 434.
tion/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3I:6557253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1997)
```

```
/clone_lib="NCI_CGAP_Mam4"

/hote="Organ: mammary; Vector: pCMV-SPORT6; Site_1: SalI;

Site_2: Not1; Cloned unidirectionally. Primer: Oligo dT.

Library constructed by Life Technologies. Investigators

providing samples: Lochar Hennighausen/Priscilla Furth,

NIH Reference for transgenic model: Li et al., Cell Growth

and Differentiation 7, 3-11 (1996)."
                                                                                                                                                                                                                         ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       652
                                                                                                                                                                                                                                                                                                                        172
                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                         292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAAGCTGTCCATATCATCA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      532
                                                                                                                                                                                                                                                                                                                                                                                       232
                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 regarregrearceregreareagarraccagaagaagargaagagaargagagacaagra 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGGCTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTCTGGGCAGT 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      caaraddarcriccreccaccarcracricarcarcricardacreccaragiced
                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CIATGEGGGCGCTCTTGGATCCAACCCTCCTCGACTTTACCTGACTTTGACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -eccarrerecarecaceaecaereaareceaaeaaeeeereereereereere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGATGCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACTIGICAACCTCTACAGCGTTCTCATCTGGCCTTCATCAACCTGGACCGGTACCT
                                                                                                                                                                                                                                                                                                                                             TGTTGCCATGGAACCGATCAGTGTGGAGTATATACACTTCTGATAACTACTCTGAAGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                           GGGGTCTGGAGCTATGACTCCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTNCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTA
                                                                                                                                                                                                                                                                                       GGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGCGAG
                                                                                                                                                                                                                                                                                                                        TGTTGCCATGGAACCGATCAGTGTGAGTATACACTTCTGATAACTACTCTGAAGAAGT
                                                                                                                                                                                                                                                                                                                                                                                       GGGGTCTGGAGAATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAAGGTCCATTT
                                                                                                                                                                                                                         2; Gaps
                                                                                                                                                                                        84.1%; Score 576.2; DB 10; Length 628; llarity 96.7%; Pred. No. 5.8e-129; Conservative 0; Mismatches 19; Indels 2;
gross tissue'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTCAGCCCAGGGACATCATTCAGGGGA 628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTCAGCCAGGGGACATCAGTCAGGGGGA 682
/tissue_type="tumor,
/dev_stage="5 months"
/lab_host="DH10B"
                                                                                                                                                                                                                                                           GGTAGCAGTGACCCT
                                                                                                                                                                                                            Local Similarity
es 609; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         653
                                                                                                                                                                                                                                                                                                                                                                                            173
                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                          233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                         Н
                                                                                                                                                                                                                                                                                                                            113
                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                           53
                                                                                                                                                                                               Query Match
                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                  \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ል ጵ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
```

RESULT 5
BG173867
LOCUS
BG173867
LOCUS
LOCUS
DEFINITION
60233928F1 NCI\_CGAP\_Mam1 Mus musculus cDNA clone IMAGE:4457119 5',
ACCESSION
BG173867
ACCESSION
BG173867
BG173867
BG173867
CERWORDS
SOURCE
Mus musculus (house mcuse)
ORGANISM Mus musculus
CRGANISM Mus musculus
CRGANISM Mus musculus
ACCESSION
REMARYORD;
Mus musculus
ACCESSION
REMARYORD;
Mus musculus
ACCESSION
REMARYORD;
Mus musculus
ACCESSION
REMARYORD;
Mus musculus
ACCESSION
REMARYORD;
Mus musculus
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSION
ACCESSIO

240 120 180 312 372 300 432 360 486 420 546 480 665 /db\_xref="taxon:10090"
/clone="IMAGE:4457119"
/tissue\_type="tumor, blopsy sample"
/tasue\_type="tumor, blopsy sample"
/dev\_stage="10 months, virgin"
/lab\_host="millo"
/clone\_lib="NCI\_CGAP\_Mam1"
/note="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/note="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
/incte="forgan: mammary; Vector: pCMV-SPORT6; Site 1: S 192 252 909 9 E 1 (bases 1 to 955)
S NIE-MGC http://mgc.nci.nih.gov/.
NIE-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
CONTECT: Robert Strausberg, Ph.D.
Email: cgapbe-remail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
CONN Library Preparation: Life Technologies, Inc.
CONN Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LiAM1053 row: g column: 08
High quality sequence stop: 652.
High quality sequence stop: 652. TGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGG CCATCTACTTCATCTTCTTGACTGGCATAGTCGGCATGGATTGGTGATCCTGGTCA GGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGA-CGTCAGCCAGGGG GCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGGGGGTGTTGCCATGGAACCGATCA CCACCAACAGTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCT ccaccaacagtcaaaggccaaggaaacrgcrggcrgaaaaggcagrcrargrgggcgrcr GTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACT CCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCA CCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCA TGGGTTACCAGAAGAAGCTAAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGG -ACTITIGGGAAATITITIGTGTAAGGCTGTCCATATCATCTACAC----TGTCAACCTCT ACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACG GCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGCGAGTGTTGCCATGGAACCGATCA GIGIGAGIATATACACTICIGATAACTACTCTGAAGAAGTGGGGGICTGGAGACTATGACT cchacaaggaaccigcriccggargaaaacgiccarircaaraggarcirccrgccca CIGACCICCICITIGICAICACACICCCCITCIGGGCAGIIGAIGCCAIGGCIGACIGGI рe Gaps (MGC) 7; Length 955; Indels 79.4%; Score 544; DB 12; 95.6%; Pred. No. 4.6e-121; iive 0; Mismatches 20; 1. .955 /organism="Mus musculus" /mol\_type="mRNA" /strain="FVB/N" 593; Conservative Similarity Query Match Best Local S Matches 593 487 421 73 133 61 121 253 181 313 241 301 547 481 193 373 433 607 REFERENCE AUTHORS TITLE JOURNAL COMMENT FEATURES ORIGIN 셤 8 8 8 ద 8 8 ର୍ଷ ନିର୍ଦ୍ଦ 쉱 ò 요 ò g ठ 8 8

```
241 AGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481 GAT-CCAGCCCTCCTCAGACTATACCTGACTTCATCTTTNGCGACGTCAGCCAGGGGGA 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCT 120
                                                                                                                                                                                                                                                                                                                                                                       548 CACCAACAGTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCCAGGGGGA
                                                                                                                                                                                             181 GGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTC
                                                                                                                                                                                                                                                AGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGA
                                                                                                                                                                                                                                                                                                                                           CTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                           488 CAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGC
                                                   GCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCT
                                                                             GCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATAGTGATGCT
                                                                                                                                                 GGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Seg primer: -40RP from Gibco
High quality sequence stop: 463.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /mol_type="mRNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="IMAGE:3375541"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tissue type="Thymus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 dev stage="4 weeks"
lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          668 CATCAGTCAGGGGATGA 685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540 CATCAGTCANGGGGATGA 557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BE627479.1 GI:9907901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tumor Gene Index
Unpublished (1997)
                                                                                                  121
                                                                                                                                                 308
                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          608
                                                   248
                                                                                                                                                                                                                                                368
                                                                                                                                                                                                                                                                                                                                              428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 7
BE627479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                            ઠે
                                                                                          g
                                                                                                                                              ò
                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .581
| organism="Mus musculus"
| organism="Mus musculus"
| wol_type="MaxNa" |
| strain="1657BL/6" |
| db_xref="taxon:10090" |
| clone="InMaxNa" |
| tissue_type="maxNa" |
| tissue_type="mbbyo 15:5,16.5,17.5,18.5 dpc" |
| dev_stage="mbbyo 15:5,16.5,17.5,18.5 dpc" |
| dev_stage="mbbyo 15:5,16.5,17.5,18.5 dpc" |
| clone_lib="NIH_BMAP_GW0" |
| clone_lib="NIH_BMAP_GW0" |
| clone_lib="NIH_BMAP_GW0" |
| clone_lib="NIH_BMAP_GW0" |
| clone_lib="Organ: Bys. Vector: pxx- Asc; Site_l: Ecok I; Site_2: Not I; The library was constructed according Bonaldo, Lennon and Soares, Genome Research, 6:791-886, 1996. Denatured RNA was size fractionated on a 1% agarose gel.First strand cDNA synthesis was primed with oligo-dr primer containing a Not I site. Double strand cDNA was size selected according to mRNA size fraction, ligated with Ecok I adaptor, digested with NotI and then cloned directionally into pXx-Asc vector. The library tag sequence located between the Not I site and the polyA tail is CTGCGTCCTC. This library was created for the University lows Brain Anatomy Project (BMAP): 'Gene Discovery in the Developing Mouse Nervous System', supported by National Institute of Mental Health (NIMM), Hemin Chin, Ph.D., program coordinator."
                                                                                                                                                                                                                                                                                                                                                                               Mus musculus (house mouse)

Mus musculus

Eukaryota; Matazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Eukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.

I (bases 1 to 581)

S NIH-MoC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov

Tissue Procurement: Dr. Jim Lin, University of Iowa

CDNA Library preparation: Dr. M. Bento Soares, University of Iowa

DNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa

CLONA Library Arrayed by: Dr. M. Bento Soares, University of Iowa

DNA Advancing by: Dr. M. Bento Soares, University of Iowa

Clone Distribution: Distribution information can be found at

http://genome.ulowa.edu/distribution/mousefl.html

This clone was contributed by the Brain Molecular Anatomy Project
                                                                                                                                                                                                                                              CF540844 11near EST 12-SEP-2003
UI-M-GWO-cio-1-17-0-UI.rl NIH BMAP_GWO Mus musculus cDNA clone
INAGE:30542392 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        128 GATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTA 187
1 GAICAGIGIGAGIAIAIACACIICIGAIAACIACICIGAAGAAGIGGGIICIGGAGACIA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 78.3%; Score 536.6; DB 14; Length 581; Best Local Similarity 98.6%; Pred. No. 2.3e-119; Matches 550; Conservative 0; Mismatches 7; Indels 1; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                 CF540844,1 GI:34593367
EST.
                                                                                                                 501 GACATCAGTCAGGGGATGA
                                                                             666 GACATCAGTCAGGGGGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sed primer: pYX-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          188
                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                               RESULT 6
CF540844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                        à
                                                                                                                       a
```

427

367

```
EST 24-AUG-2000
                                                                                                                                                                                                                                                                                                                                 Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Musinaes 1 to 585)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP);
BE627479 50ares thymus 2NDMT mRNA linear EST 24-AUG-20
uu52b07.y1 Soares thymus 2NDMT Mus musculus cDNA clone
IMAGE:3375541 5' Similar to gb:L06797 PROBABLE G PROTEIN-COUPLED
RECEPPOR LCR1 HOMOLOG (HUMAN);, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
MGI:1085145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone_lib="Soares thymus_2NbMT"
/note="Vector: pT7T3D-Pac"(Pharmacia) with a modified
```

primer:

/organism="Mus musculus" /mol\_type="mRNA" /strain="NMRI"

Location/Qualifiers

FEATURES

RZPDLIB; I.M.A.G.E. cDNA Clone Collection;
Mouse UnigeneSet - RZPD2 (RZPDLIB No.981)
http://www.rzpd.de/CloneCarde/Cgibin/showhib.pl.cgl/response?libNo=881 Contact: Ina Rolfs
Labin/showhib.pl.cgl/response?libNo=881 Contact: Ina Rolfs
RZPD Deutsches Ressourcenzentrum fuer Genomforschung GmbH
Heubnerweg 6, D-14059 Berlin, Germany
Tel: +49 30 32639 101
Fax: +49 30 32639 111
www.rzpd.de
This clone is available royalty-free from RZPD;
contact RZPD (clone@rzpd.de) for further information. Seq prin
SP6, Primer sequence: ATTAGGTGACACTATAG.

```
ö
                                                                                          180
                                                                                                                                                    240
                                                                                                                                                                                                             TCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGG 300
                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                    rerecerentrecerriscasararacacricesaraacracreceresasaasaseseerres 107
                                                                                                                                                                                 167
                                                                                                                                                                                                                                             227
                                                                                                                                                                                                                                                                                                        287
                                                                                                                                                                                                                                                                                                                                                                   347
                                                                                                                                                                                                                                                                                                                                                                                                TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA 480
                                                                                                                                                                                                                                                                                                                                                                                                                            348 idecrearcaractricesaaarriristeraaactrorcararcarcaractera 407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     408 ACCICIACAGCAGCGIICICAICCIGGCCIICAICAGCCIGGACCGGIACCICGCIAIIG 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGTCTGGATCCCAGCCCTCCTCATACCTGACTTCATCTTTGCCGACGTCAG 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTNTGCCGACGTCAG 585
                                                                                                                                                                    GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                                                                                                                                                                                                                                                                                                                                      288 ACCTGTCAGTGACCTCCTTTTGTCATCACACTCCCTTCTGGGCAGTTGTTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAGTGGGGTCTG
                                                                                                                                                   GAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA
                                                                                                                                                                                                                                            rerrecreeceaceareracricarearerrerreacreecaracreecaaresarres
                                                                                                                                                                                                                                                                         TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC
                                                                                                                                                                                                                                                                                                        TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC
                                                                                                                                                                                                                                                                                                                                     ACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCICIACAGCAGCGIICTCATCCIGGCCIITCAICAGCCIGGACCGGIACCICGCCAIIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                           ô
                         74.7%; Score 511.4; DB 10; Length 585; 96.8%; Pred. No. 3e-113; ive 0; Mismatches 17; Indels 0;
                                                           Conservative
                                           Similarity
                                          Local Simi
hes 521;
                                                                                                                                                                                                             241
                                                                                                                                                                                                                                             168
                                                                                                                                                                                                                                                                                                        228
                                                                                                                                                                              108
                                                                                                                      48
                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                              Query Match
                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                          Matches
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                             g
                                                                                                                                                                      유 &
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                               à
                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

504 bp mRNA linear EST 25-JUN-2003 Mam4 Mus musculus cDNA clone IMAGp9980056625; Mus musculus (house mouse)
Mus musculus
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia; Eutheria, Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 504)
Heil,O., Ebert,L., Neubert,P., Peters,M., Radelof,U., Schneider,D. and Korn,B. 504 ) BX513842 NCI CGAP Mam4 Mus mu: IMAGE:2654812, mRNA sequence. Mouse UnigeneSet - R2PD2 Unpublished (2003) Contact: Ina Rolfs EX513842 EX513842.1 GI:32243853 EST RESULT 8 BX513842 LOCUS DEFINITION ORGANISM REFERENCE AUTHORS TITLE JOURNAL COMMENT ACCESSION VERSION KEYWORDS SOURCE

/db xref="taxon:10090"
/clone="IMAGB9980056625; IMAGB:2654812"
/clone="IMAGB9980056625; IMAGB:2654812"
/clone="Eumor, gross tissue"
/dev stage="5 months"
/dab\_host="DH10B"
/lab\_host="DH10B"
/clone lib="NOI CGAP Mam4"
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: SalI;
/note="Organ: pCMV-SPORT6; Site 1: SalI;
/note="Organ: pCMV-SPORT6; Site 1: SalI;
/note="Organ: pCMV-SPORT6; Site 1: SalI;
/note="Organ: pCMV-SPORT6; Site 1: SalI;
/note="Organ: pCMV-SPORT6; Site 1: SalI;
/note="Organ: pCMV-SPORT6; Site 1: SalI; Site 1: SalI; Site 1: SalI; Site 1: SalI; Site 1: SalI; Site 1: SalI; Site ô 109 169 120 229 180 289 240 349 300 409 469 301 GTACCGGCTGCACTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTCTGGGC 360 CTACACTGTCAACCTCTACAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA 529 CTACACTGTCAACCTCTACAGCGGGTTCTCATCCTGGCCTTCATCACCGCTGGACCGGTA 480 9 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC GCAGGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCCGGTAACCACCACGGCTGTTAGAGGC GAGTGTTGCCATGGAACCGATCAGTGAGTATATACACTTCTGATAACTACTCTGAAGA 181 TITCAATAGGATCITCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGG CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA 121 AGTGGGGTCTGGAGACTATGACTCCAACAAGAACCCTGCTTCCGGGATGAAAACGTCCA Tricaalaggalcirccrcccaccalcractrcarcarcrictrcargactgccalagrage AGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT AGTGGGGTCTGGAGACTATGACTCCAACAAGAACCCTGCTTCCGGGATGAAAACGTCCA GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGC Gaps .. Query Match 73.4%; Score 503; DB 13; Length 504; Best Local Similarity 99.8%; Pred. No. 3e-111; Matches 503; Conservative 0; Mismatches 1; Indels ( 553 504 CCTCGCCATTGTCCACGCCACCAA CCTCGCCATTGTCCACGCCACCAA 20 Н 110 61 170 230 290 350 241 410 470 421 530 481 ORIGIN ઠે 셤 ò g à g 8 g ò 5 ઠે 셤 ઠે q  $\delta$ 셤 à 음

RESULT

RZPD Deutsches Ressourcenzentrum fuer Genomforschung Im Neuenheimer Feld 580, D-69120 Heidelberg, Germany RZPD; IMAGD9980056625

```
4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             496
        BF101953 886 bp mRNA linear EST 19-OCT-2000 601752919F1 NCI_CGAP_Mam1 Mus musculus cDNA clone IMAGE:3980525 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /db xref="taxon:10090"
/clone="IMAGE:3980525"
/tissue type="tumor, biopsy sample"
/dev stge="10 months, virgin"
/lab host="Dib="NCI_GAP_Mam1"
/lab host="NCI_GAP_Mam1"
/note="Organ: mammarry; Vector: pCMV-SPORT6; Site_1: Sal1;
Site_2: Not1; Cloned unidirectionally. Primer: Oligo dT.
Library constructed by Life Technologies. Investigator
providing samples: Gilbert Smith, NIH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Traccadaadaadctaaddacardacdacaadaagraccadcracaccagradagadaa 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E (bases 1 to 886)

S NIH-WGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Robers Exrausberg, Ph.D.

Contact: Robers Exrausberg, Ph.D.

Condact: Robers Exrausherg, Ph.D.

Cond Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LIML)

DNA Sequencing by: Incyte Genomics, Inc.

Cloe distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/LiNL at:

http://image.llnl.gov

Plate: LiAMN176 row: e column: 06

High quality sequence stop: 665.

Hocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99
                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 886)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    67 GAGTATATACACTICTGATAACTACTTGAAGAAGTGGGGTCTGGAGAGTATATGACTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACTICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGCTGGTCCTGGTCATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      77 TIGGIGCTCCGGIAACCACCACGGCTGIAGAGCGAGTGITGCCAIGGAACCGAICAGIGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7 riegiecrocegiaaccaccacecrorasaeceaererreccaresaaccearcaerer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGTACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71.2%; Score 487.8; DB 10; Length 886; 98.7%; Pred. No. 1.9e-107; arive 0; Mismatches 2; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Mus musculus"
/mol_type="mRNA"
/strain="FVB/N"
                                                                                                                                Mus musculus (house mouse)
Mus musculus
                                                                                           BF101953.1 GI:10884479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similario,
Matches 534; Conservative
                                                 mRNA sequence.
BF101953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       137 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
                                                                      ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                  LOCUS
                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
3F101953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     යු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     염 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
```

```
ö
                                                                       EST 26-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 AGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09
                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. I. (bases 1 to 514).
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                ut70g04.y1 Scares mouse NMGB bcell Mus musculus cDNA clone NMGB bcell Mus musculus cDNA clone RECEPTOR TYPE 4 ;, mRNA sequence.
                                                                                                                                                                                                                                                                                  Tumor Gene Index.
Tumor Gene Index.
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the INAGE Consortium (info@image.llnl.gov) for further information.
MGI:1077482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            122 ggaaccgarcagtgragtararacactrcraaraacractcraaaaaaagragagrcrag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 GGAACCGATCAGTGTGTGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         182 AGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tch 69.0%; Score 472.4; DB 12; Length 514; al Similarity 94.9%; Pred. No. 8e-104; 488; Conservative 0; Mismatches 26; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                      Trace considered overall poor quality Seq primer: -40RP from dibco High quality sequence stop: 1. Location/Qualifiers
                                                                                                                                                                               Mus musculus (house mouse)
                                                                                                                                                    BG093377.1 GI:12575940
Ċ 542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Si
Matches 488,
542
                                                           BG093377
LOCUS
DEFINITION
                                                                                                                                      ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                              RESULT 10
                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
```

617 C 617

 $\delta$ 

g

g

8

ò

-- GGGAAATTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGT

Contact: Scares, MB
Contact: Scares, MB
Coordinated Laboratory for Computational Genomics
University of Iowa
375 Newton Road, 4156 MEBRF, Iowa City, IA 52242, USA
Tel: 319 335 8256
Fax: 319 335 9656
Email: bento-scares@uiowa.edu
The sequence contained an oligo-dr track that was present in the oligonuclectide that was used to prime the synthesis of first strand cDNA and therefore this may represent a bonafide poly A tail. The sequence tag present in the cDNA between the Not1 site and the oligo-dr track served to identify it as a clone from the normalized cervix library cDNA Library Preparation: M.B. Scares Lab Clone distribution: clones will be available through Research BM387369 765 bp mRNA linear EST 17-JAN-2002 UI-R-CN1-cjj-g-19-0-UI.sl UI-R-CN1 Rattus norvegicus CDNA clone UI-R-CN1-cjj-g-19-0-UI 3', mRNA sequence. 241 CCTGTCAGTGGCTGACTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCAT 300 GGCTGACTGGTACTTTGGGAAATTTGTGTGTAAGGCTGTCCATATCATCTACACTGTCTA 360 541 420 601 180 GATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCA 361 240 421 481 EST. Sattus norvegicus Rattus norvegicus Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, 1 (bases 1 to 765)
Bonaldo,M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene CTTCCTGCCCACCATCTACTTCTTTGACTGGCATAGTCGCAATGGATTGGT CTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGGCAATGGATTGGT CCTGTCAGTGGCTGACCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCAT GGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAA CCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGT CGTCTGGATCCCAGCCTCCTCCTGACTATACCT 635 discovery Genome Res. 6 (9), 791-806 (1996) 97044477 8889548 location/Qualifiers BM387369 T SI:18187422 Seq primer: M13 Forward POLYA=Yes. 482 ( 121 302 181 362 422 301 602 ACCESSION VERSION KEYWORDS SOURCE ORGANISM RESULT 11 BM387369 LOCUS DEFINITION REFERENCE AUTHORS TITLE JOURNAL MEDLINE PUBMED COMMENT FRATURES Dp 8 g qq à 8 qq à g q ò

1. 765
/organism="Rattus norvegicus"
/mol type="mRNA"
/strain="byrague-Dawley"
/db xref="taxon:10116"
/clone="UI-R-CNI-cjj-g-19-0-UI"

Another Designation Life Technologies)"

Anotes Theorem 1. The CMM; with the Modified Polylinker; Size 1: Not 1. Size 2: Eco Fil. The UIR-CMM; Doubly-Linker; Size 1: Not 1. Size 2: Eco Fil. The UIR-CMM; Doubly-Linker; Size 1: Not 1. Size 2: Eco Fil. The UIR-CMM; Diply-Linker; Size 1: Not 1. Size 2: Eco Fil. The UIR-CMM; Diply-Linker; Size 1: Not 1. Size 2: Eco Fil. The UIR-CMM; Double College of College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College College

This pool represented 5% of the final driver population.

h) a pool of the 28 most abundant clones in the CNO pool corresponding to the following addresses: bkw-a-09-0-UI, bkw-b-09-0-UI, bkx-b-10-0-UI, bkx-b-10-0-UI, bkx-b-10-0-UI, bkx-a-05-0-UI, bkx-a-08-0-UI, bkx-a-11-0-UI, bkx-a-05-0-UI, bkx-a-11-0-UI, bkx-a-01-0-UI, bkx-a-11-0-UI, bla-a-01-0-UI, bla-a-01-0-UI, bla-a-01-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, bla-a-12-0-UI, b

しかば・0 - 700 - 100 - 60 - 81

RIGIN

ö 195 255 164 224 315 284 375 344 435 404 495 555 524 464 556 GICAAAGGCCAAGGAAACIGCTGGAAAAAGGCAGICIAIGIGGGCGICIGGAICCGAG 615 165 ACAAGGAACCCTGCTTCCGGGATGAAAACGAAAACTTCAACAGGATCTTCCTGCCCACCA 316 GITACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTG 285 GITACCAGAAGAGGAGCATGACAGACAAGTACCGGCTGCACCTGTCCGTGGCTG 376 ACCICCICITIGICAICACACICCCCTICIGGGCAGITGAIGCCAIGGCIGACIGGIACI 345 ACCICCITITGICALCACACTCCCCTTCTGGGCAGTGGACGCCATGGCTGACTGGTACT 465 TICTCATCCTGGCCTTCATCAGCCTGGACCGCTACCTTGCCATTGTCCACGCCACACA 136 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCA 105 riggaaararacacrricgaraacracriccaagaagaagracggricricgagacrargacricca 225 TCTATTTTATTATTATTCTTCTTGACTGGCATAGTGGGCAATGGGGTTGGTAATCCTGGTCATGG 436 TIGGGAAATITITIGIGIAAGGCIGICCAIAICAICIACACCIGICAACCICIACAGCAGCG 405 Trassaarrrrrangraasscrstscarrarcarcracaccaraccrrracascasca 496 TTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACA 196 ACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCA 256 TCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG Gaps ő Query Match 68.7%; Score 470.8; DB 12; Length 765; Best Local Similarity 92.2%; Pred. No. 2.4e-103; Matches 496; Conservative 0; Mismatches 42; Indels 0; 8 원 ò g ઠે 셤 à 원 g 음 ò ઠે ò ઠ 8

RESULT 12
BX418530
LOCUS
LOCUS
DEFINITION BX418530 Home sapiens FETAL BRAIN Home sapiens cDNA clone
CSODFO06YJ16 5-PRIME, mRNA sequence.
ACCESSION BX418530.1 GI:30658606
KEYWORDS
EST.
SOURCE Home sapiens (human)

578

459 476 519

8 8 8

CIGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAAAGGGCCAAGGAAACTGCTG

Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Bukaryota, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

El (Asasa I to 1201)

I (Asasa I to 1201)

In (Lassa I to 1201)

Contact: Gruber.C., Jessee, J. and Polayes, D.

Full-length cDNA libraries and normalization

L Onpublished (2001)

Contact: Genoscope

Genoscope - Centre National de Sequencage

BP 191 91006 EVRY cedex - France

Genoscope - Centre National de Sequencage

BP 191 91006 EVRY cedex - France

Email: seqref@genoscope.cns.fr

Library was constructed by Life Technologies, a division of

Invitrogen. This sequence belongs to sequence cluster 1272.r For

more information about this cluster, see

http://www.genoscope.cns.fr

cgi-bin/cluster.cgi?eeq=CSODF006DE08QP1&cluster=1272.r. Contact :

Feng Liang Email: fillangelifetech.com URL:

http://fulllength.invitrogen.com/ Invitroden Corporation 1600

Faraday Avenue Genoscope sequence ID : CSODF006DE08QP1. 158 120 175 218 235 338 355 398 458 CCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCA 475 98 39 cccggccaggraccaggraccarcragaggcgrrragracraccac TACACCGAGGAAATGGGCTCAGGGGACTATGAYTCCATGAAGGAACCCTGTTTCCGTGAA GGCTGTAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAAC GGCATAGTCGCCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGC GGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGC AIGACGGACAAGTACCGCTGCACCTGTCAGTGGCTGCCTCCTCTTTGTCATCACACTC TACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGAT 219 GAAAACGICCAITICAAIAGGAICTICCIGCCCACCAICIACTICAICTICTIGACT 356 Argacogacaagracagecrecaccrercagreeccaccrecrerrerearcaceerr CCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCT 5; Gaps Similarity 82.8%; Pred. No. 3.6e-98; Similarity 82.8%; Pred. No. 3.6e-98; S. Conservative 1; Mismatches 103; Indels 5; Query Match Best Local Simil Matches 526; C **ω** 159 279 596 339 176 236 399 416 ORGANISM REFERENCE AUTHORS TITLE JOURNAL COMMENT FEATURES ORIGIN ò 셤 셤 ద g 8 8 g 셤 ð à ò 8 8

	Oy 324 AAGAAGCTAAGGACAACTACCGGCTGCACCTGTCAGTGGCTGACCTCCTC 383	424 TTCCTATGCAAGGCAGTCCATGTCATCTACACAGTCAACAGCTCTACAGCAGTGT 504 CTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCACAG 504 CTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCACCACGCACCACGCACCACGCACCACGCACCAC	MAY - 2		Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Plate: NDAM385 row: b column: 21 High quality sequence stop: 663. High quality sequence stop: 663.  PEATURES 1802 /mol type="mkMa" /db_xref="taxon:9606" /dlone="type="mkMa" /db_xref="type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="https://tisuc-type="h
sgaagcrgrrg 595 raraccrgac 638          rarrcccgac 655	EST 25-SEP-2001 FE:5186837 5',	Euteleostomi; Homo. tion (MGC)	ion can be	lestroyed); RNA o male, 49 yo vary is ECORV site is z = 1.4 kb, lized and istructed by C.	5; Gaps 1; GCGTTTGGTGC 83 GCCTTGAGTGC 68 GTGTGAGTATA 143 GTGTGAGTATA 123 CCAACAAGGAA 203
536 CTGGACCGCTACCTGGCCATCGTCCACGCCACCACACAGGCCAAGGAAGCTGTTG 579 GCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTCACTATACCTGAC 536 GCTGAAAAGGTGGTTTATGTGGGCGTCTGGATCCCTGCCTCCTCCTGCTGACTATACCTGCTGAAAAGGTCGAAGGGATCTGGATCCCTGCCTCCTGCTGAAAAGGTCGAGGGAACATCCCGACGAGGGAACATCAGGTTGCCGAAGGGAACATCAG 673 639 TTCATCTTTGCCAAGGCAAGACAACAGCAACAG 690 656 TTCATCTTTGCCAACGTCAGGCAGATGACAG 690		Eukaryota; Metazoa; Chordata; Craniata; Mammalia; Eutheria; Primates; Catarrhini, 1 (Mages 1 to 703)  NIH-MGC http://mgc.nci.nih.gov/. Nupublished (1999) Contact: Robert Strausberg, Ph.D. Frail: cgapbs-r@mail.nih.gov Tissue Procurement: Life Technologies, Ir	Cload Cload found http:/ blate: High o	/clone_lorgan_name_local_no, kidney, stomach; Vector: /note="Organ pooled colon, kidney, stomach; Vector: pCMV-SPORT6; Site_1: Not1; Site_2: EcoRV (destroyed); RNA source anonymous pool of 3 colons, age 26 yo male, 49 yo female, 71 yo male colon; 46 yo male kidney, and pool of stomachs, 62 yo male and 70 yo female. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 14 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 023. Note: this is a NIH_MGC Library."	65.6%; Score 449.2; DB 12; Length 21; Conservative 0; Mismatches 113; Indels GGGCTCGAGCGCCGGGCAGGTGCAGGTAGCAGGAGTGCCCTCTGAG
8 8 8 8	RESULT 13 B1765768 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM	REFERENCE AUTHORS TITLE JOURNAL COMMENT	FEATURES	ORIGIN	Query Match Best Local Matches 53 Qy 24 Qy 84 Qy 84

```
Theritutes of Health, Mammalian Gene Collection (MGC) and (1999)

and (1999)

apples remaining ph.D.

apples remaining over the state of Health, Mammalian Gene Collection (MGC)

apples remaining over Michael J. Brownstein (NHGRI) with help cary Preparation: Michael J. Brownstein (NHGRI) with help cary Preparation: Michael J. Brownstein (NHGRI) with help cary Preparation: Michael J. Brownstein (NHGRI) with help cary Preparation: Michael J. Brownstein (MICR)

arity prayed by: The I.M.A.G.E. Consortium (LLNL)

and principle of the distribution information can be ough the I.M.A.G.E. Consortium/LLNL at:

age-llnl.gov

age-llnl.gov

age-llnl.gov

fly sequence stop: 663.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            802 bp mRNA linear EST 01-MAY-2003
93109 NIH MGC_147 Homo sapiens cDNA clone
4 5', mRNA sequence.
rgactggcatagtcggcaatggattggtgatcctggtcatgggtaccag 323
                                                                                                                                                                                                                                                         383
                                                                                                                                                                                                                                                                                                                                  SAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTC 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAA 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATC 503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAAAGG 563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTC 623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTCCTG 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
heria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                   sea g can ga con a construction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TIGACTICATCTITGCCGACGTCAGCCAGGGGGACATCAG 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ne="IMAGE:30346124"
ssue_type="Human Placenta"
_host="DH10B TonA"
one_lib="NIH_MGC_147"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ranism="Homo sapiens"
_type="mRNA"
xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T:30283491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0 802)
```

Unpublished (1999)

Contact: Daniela S. Gerhard, Ph.D.
Contact: Daniela S. Gerhard, Ph.D.
Contact: Daniela S. Gerhard, Ph.D.
Coffice of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 RmlOAOT Betheada, MD 20892
Email: cgapbs-rômail.nih.gov
Tissue Procurement: Dr. Jamie Thompson, University of WI
CDNA Library Preparation: Gina Zastrow-Hayes
CDNA Library Preparation: Gina Zastrow-Hayes
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LINL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: NDRM74 row: 1 column: 08
High quality sequence steat: 9
High quality sequence steop: 797.

103

Gaps

., 2

Score 446.8; DB 14; Length 802; Pred. No. 1.6e-97; 0; Mismatches 102; Indels 5;

ch 65.2%; il Similarity 83.0%; 523; Conservative (

Query Match Best Local S Matches 523

ORIGIN

44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG

9

154 223 214 283 274 343

104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 163

GCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTG

40

ò 요 요

ò

a à 셤

Š

100 GAGAACCAGGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC

215 TGCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTCCCATCATCTTTAACTGGCAT

224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCAT

PEATURES

ORIGIN

۲, Gaps 2,

103 44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG à

93 원

283 268 ઠે 셤

343 328 284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC ઠે g

388 403 329 GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTT GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCTT 344 ò В

449 524 g ò ద

AAAGGCAGTCTATGTGGGCGTCTGGATCCCACCCTCCTCTGACTATACCTGACTTCAT 584

643

National Institutes of Health, Mammalian Gene Collection TITLE JOURNAL COMMENT

be

1. .922 1. .922 1. .922 1. .929 1. .929 /mol\_type="mkNA" /db\_xref="taxon:9606" /tigsue\_type="embryonic trophoblasts, made from WA01 stem cells" /lab\_host="DH10B TonA" /lab\_host="DH10B TonA" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173" /clone\_lib="NIH\_MGC\_173"

Query Match 65.2%; Score 446.8; DB 14; Length 928; Best Local Similarity 83.0%; Pred. No. 1.7e-97; Matches 523; Conservative 0; Mismatches 102; Indels 5;

403

275 TGTGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC

284 AGICGGCAAIGGAIIGGIGAICCIGGICAIGGGIIACCAGAAGAAGCIAAGGAGCAIGAC

463 454 523 514

394

334

224 CGTCCATTICAATAGGAICTICCTGCCCACCATCTACTTCATCATCTTGACTGGGAT
209 TGCTAATITCAATAAAATCTICCTGCCCACCATCATCATCATCTTCTAACTGGGAT

574

515 CCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGA 584 AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTGCTGACTATACCTGACTTCAT

455 TGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCATCAGGA

464 INTCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA

395 chesecagnicanschescaaachednachinessaachenanscaassenea

CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA

404

ઠે

ద  $\dot{\delta}$ 요 8 셤 ò g

8 g ò

269 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAACGATGAC

CTGGGCAGTTGATGCCATGCCTGCTACTTTGGGAAATTTTTGTGTAAGCCTGTCCA 404

508 TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA TGTCATCTACACACACACCTCTACAGCAGTGTTCTTCTTCTTCGGCCTTCATCAGCAGTCTGGA 464

CD389217
AGENCOURT\_14302495 NIH\_MGC\_173 Homo sapiens cDNA 5', mRNA sequence.

CD389217.1 GI:31227843 EST.

LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM

RESULT 15 CD389217

REFERENCE AUTHORS

Homo sapiens (human)
Homo sapiens
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 928)
NIH-MGC http://mgc.nci.nih.gov/.

583 CGCTACCTGGCCATCGTCCACGCCACACAGAGAGGCCAAGGAAGCTGTTGGCTGA 509

569 AAAGGIGGICIAIGIIGGCGICIGGAICCCIGCCICCIGCIGACIAITCCCGACITCAI 628

644 CTTTGCCGACGTCAGCGAGGGGACATCAG 673

9 & 9

Search completed: May 17, 2004; 16:09:07 Job time : 1983.17 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: Title:	May 17, US-09-3	, 2004, 04:56:59 ; Search time 6852.38 Seconds (without alignments) 10714.982 Million cell updates/sec	
litte: Perfect score: Sequence:	1694 1 atat	US-09-00-1026-7 1694 1 atatacacttotgataactataaaagtcaatgataaactt 1694	
Scoring table:	IDENTI	IDENTITY_NUC Gapop 10.0 , Gapext 1.0	
Searched:	3470272	2 segs, 21671516995 residues	
Total number of	hits	satisfying chosen parameters: 6940544	
Minimum DB seq Maximum DB seq	length: length:	200000000	
Post-processing	Minimum Maximum Listing	um Match 0% um Match 100% ng first 45 summaries	
Database .	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Jambl: *  gb ba: *  gb ba: *  gb ba: *  gb ba: *  gb bi: *  gb pat: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt: *  gb pt	
		em_htgo_mus:* em_htgo_other:*	

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

pt.	BC01465 Mus musculu AC14556 Mus muscul AC14556 Mus musculu AC147556 Mus musculus X99581 M.musculus X99581 M.musculus X99581 M.musculus X99581 M.musculus X99581 M.musculus X99581 M.musculu Z80112 Mus musculu Z80113 Mus musculu Z80113 Mus musculu Z80113 Mus musculu Z80113 Mus musculu Z80113 Mus musculu Z80113 Mus musculu Z80113 Mus musculu Z80114 Musculus Z80115 Mus musculu Z80115 Mus musculu Z80114 Musculus Z80115 Mus musculu Z80115 Mus musculu Z80116 Mus musculu Z80117 Mus musculu Z80113 Mus musculu Z80114 Musculus Z80114 Musculus Z80114 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 SEQUENCE Z80116 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun Sapien Z80118 Musun	pp mRNA linear ROD 07-FEB-1999 CKCR-4, complete cds.  Craniata; Vertebrata; Buteleostomi; Sciurognathi; Muridae; Muxinae; Mus.  iibana, K., Iizasa, H., Bleul, C.C.,
Ωï	D87747 D87747 D87747 D87747 D8774586 AC147856 AMLESTREN AC122097 AMLESTREN AC122097 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMLCR13 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMC1033 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AMMCG10 AM	1877 k urine ( se) rdata; entia; ., Tach
ΩB		A for 2445 use m oa; C ia; R ajima shima
Length	20 0 4 4 9 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	mRN 177 (ho traz her Nak
% Query Match	O ወ 4 4 4 4 4 4 9 0 0 0 L 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U	Iscu SCA Iscu Iscu Iscu Iscu Iscu Iscu Iscu Iscu
Score		Mus Mus Mus Xok Xis
Result No.		RESULT 1 D87747 LOCUS LOCUS DEFINION ACCESSION VERYORDS SOURCE ORGANISM REFERENCE AUTHORS

N

Page

8 8 8 g ò g 6 6 6 8 8 8 8 6 8 6 8 6 8 8 8 8 8 셤 8 g 8 S 8 8  $\dot{\delta}$ g 강 염 8 셤 /codon start=1
/codon start=1
/codon start=1
/product=murine CXCR-4
/protein id="BAAl3451.1"
/db\_xref="G1:1772446"
/protein id="BAAl3451.1"
/db\_xref="G1:1772446"
/translation="MRFISVSIYEDNYSEBYGSGDYDSNKEPCFRDENVHFNRIFLP
/translation="MRFISVSIYEDNYSEBYGSGDYDSNKEPCFRDENVHFNRIFLP
/translation="MRFISVSIYEDNAYOKSKLIAFISADKHANNSQRARKLIAERANYY
DWYFGKFECKAYHIIYPNLYSSYLILAFISADKHANNSQRARKLIAERANYY
GVWIPALLITPDFIRADVSGDISGGDDRYICDRLYFDSLWMYVFQFQHIMVGLILP
GIVILBALITTRALAFFHGCLNPTLLAFFACWLPYVGISIDSFILLGY
IKGGCDFESIVHRWIGTTRALAFFHGCLNPTLYAFLGAKFKSSAQHALNSMSRGSSIK
ILSKGKRGGHSSVSTESESSSFHSS" ö 180 380 440 GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATGTAC 120 260 320 240 300 500 Molecular cloning and characterization of a murine pre-B-cell growth-stimulating factor/stromal cell-derived factor 1 receptor, murine homolog of the human immunodeficiency virus 1 entry coreceptor fusin Proc. Natl. Acad. Sci. U.S.A. 93 (25), 14726-14729 (1996) 8962122 9 Nagasawa,T.
Direct Submission
Direct Submission
Submitted (05-SEP-1996) Takashi Nagasawa, Research Institute, Os
Medical Center, Department of Immunology; Murodocho 840, Izumi,
Osaka 590-02, Japan (E-mail:immunol@osk.threewebnet.or.jp,
Tel:0725-56-1220, Pax:0725-57-3021) 201 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC CTCTTTGTCATCACACTCCCCTTCTGGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG AAATTTTIGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCGGTTCTC ATATACACTICTGATAACTACTCTGAAGAGTGGGGTCTGGAGACTATGACTCCAACAAG CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG Gaps ô Query Match
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1694; Conservative 0; Mismatches 0; Indels 0; Nagasawa,T.T. Molecular cloning of murine PBSF/SDF-1 receptor Unpublished 3 (bases 1 to 1877) /gene="murine CXCR-4" /function="PBSF/SDF-1 receptor" /organism="Mus musculus"
/organism="Mus musculus"
/mol\_type="mRNA"
/db\_Xref="taxon:10090"
/db\_Iline="DW3"
/cell\_line="DW3"
/cell\_type="pre-B cell"
/tissue\_type="bre-B cell"
/tissue\_type="bre-B cell"
/tissue\_type="bre-B cell"
/tissue\_type="murine cxcR-4"
/gene="murine cxcR-4" (bases 1 to 1877) 61 121 261 181 321 241 381 301 JOURNAL MEDLINE PUBMED REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL gene CDS FEATURES ORIGIN 8 8 8 g 5 8

1040 1020 1160 1080 1140 1260 1440 1220 1200 1460 1380 900 560 480 620 540 680 900 740 966 800 720 860 780 920 840 980 960 801 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCCACCAGAAGCGCCAAGGCCTCAAGACG CTCCTGACTATACCTGACTTCATCTTTGCCGACGACGACGGGGGGGACATCAGGGG GATGACAGGTACATCTGTGACCGCCTTTACCCCCGATAGCCTGTGGATGGTGGTGTTTCAA TICCAGCATATATATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTGTTACTGC ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCTGCCATATTATGTGGGGGATCAGC ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGGATGTG CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCCACTGTTGCCTGAACCCCATC CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 1041 CTCTAIGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCAIGCACTCAACTCCATG 1221 AATATATATATATATATGATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCCACCAGAAGCGCAAAGGCCCTCAAGACG 781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGGTGGACACTCTTCCGTC TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT AATATATATATATATATGATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG 1281 ACIGACCAGICITGIACAGITITITITITITITAAITGACIGITGGGAGITIATGTCC GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTATCTGTGTGTAG AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCCAGCCCTC CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 1161 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC TCTAGITITIGEGAGGITIGACITAATITIATAAATATIGITITITITITITITICAIGI GAATGAGCGTCTAGGCAGGACCTGTGGCCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG GACTGTAGAACTGTAGAAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 501 421 621 661 861 921 981 ( 1081 481 681 601 741 841 1021 361 541 1101 1341 1261 1401 721 106 1141 1201 1321 1381 1521 ò m

us-09-367-052-7.rge

	FEATURES	gene	CDS	misc_f6	ORIGIN	Query Matc Best Local Matches 16	δ	a 8	7 QD 11	0y 13	Db 21	Qy 16	Db 27	Oy 24	33 34	30
	OY 1621 AGAGTAGATTGACTTCAGTCCCTACAAATGTACAGTCTTGTATTACATTGTAAAAAG 1680	RESULT 2 BC031665 LCCUS BC031665 LCCUS BC031665 DEFINITION Mus musculus chemokine (C-K-C motif) receptor 4, mRNA (cDNA clone MGC:35266 IMAGE:3592479), complete cds. ACCESSION BC031665 COMPLET COMPLET COMPLET CDS. ACCESSION BC031665.1 GI:21618781	MS	Mamwalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  REFERENCE 1 to 1817) AUTHORS Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Haieh, F., Diatchenko, L., Marusina, K., Farmer, A., Rubin, G.M., Hong, L., Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S., Carnindia, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullahy, S.J., Bosak, S.A., McDwan, P.J., McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.W., Villalon, D.K., Muzna, D.M., Soderen, E.J., Lu, X., Gibbs, R.A.	Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S., Sanchar E. Whiting M. Madan E. C., Charines V.	Bouffard, G.G., Blakeeley, R.W., Touchman, J.W., Green, B.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,	Schnerch, A., Scheln, J.E., Jones, S.J. and Marra, M.A. TITLE Generation and initial analysis of more than 15,000 full-length human and mouse CDNA semisoces	JOURNAL Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002) MEDLINE 22388257 PITRMED 12477932			Gene Collection (MGC), Cancer Genomics Office, Markonal Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,	REMARK NH-MGC Project URL: http://mgc.nci.nih.gov		cDNA Library Preparation: Life Technologies, Inc.	DNA Sequencing by: Baylor College of Medicine Human Genome	Center code: BCM-HGSC Web site: http://www.hgsc.bcm.tmc.edu/cdna/

```
1. .1817
| Jane = Vector: peny = Son. 1
| Jane = Vector: peny = Son. 2
| Jane = Vector: peny = Son. 2
| Jane = Vector: peny = Son. 2
| Jane = Vector: peny = Son. 2
| Jane = Vector: peny = Son. 2
| Jane = Vector: peny = Son. 2
| Jane = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: peny = Vector: pen
                                                                                                                                                                               Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRMX Plate: 61 Row: d Column: 24
This clone was selected for full length sequencing because it passed the following selection criteria: Similarity but not identity to protein.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                              1...1817
/ Organism="Mus musculus"
/ Mol type="mRNA"
/ Mol type="mRNA"
/ Btrain="FVB/N"
/ Btrain="FVB/N"
/ Ab xref="taxon:10000"
/ Clone="MGC" 36266 IMAGE:3592479"
/ tissue type="MGMmmary tumor. Metallothionien-TGF alpha model. 10 month old virgin mouse. Taken by biopsy."
/ clone=lib="NGI GAPP Mam1"
/ lab host="MHIOE"
/ note="Yector: pGMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CICTITGICALOACACTCCCCTTCTGGGCAGITGATGCCATGGCTGACTGGTACTTTGGG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            338
                                   Ή.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAATTTTGTGTAAGGCTGTCCATATCACTGTCAACCTGTCAACCTCTACAGCAGCGTTCTC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged,
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
A.N., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGAAGAAGCTAAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tch 39.2%; Score 1680.4; DB 10; Length 1817; al Similarity 99.9%; Pred. No. 0; 1692; Conservative 0; Mismatches 1; Indels 1; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       eature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8 8
```

1200 1320 1418 1419 GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTGAAATTGAATAAA 1478 1440 1059 AGCAGAGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAACGGGGGTGGACACTCTTCCGTC 1118 AATATATATATATATATAAAGAACTTTTTATGTTACACATTTTCCAGATATAAAGAG 1140 1179 AATATATATATATATATATATAAAGAACCTTTTATATGTTACACATTTTCCAGATATAAAAA 1238 1239 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC 1298 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080 999 crerargeerrecaegeecaagricaaaagerergeecageargeacreaacrecarg 1058 480 878 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCAGCATGCACTCCAACTCCATG 960 578 780 840 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 938 966 518 540 638 900 698 99 758 720 818 CACAAGIGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 900 458 420 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC GCTAGCCGTGATCCTCAGCTGTTGCTGCATAATCTCTTCATTCCGAGGAGCACCCCACCC GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG GATGACAGGTACATCTGTGACCGCCTTTACCCCCGATAGCCTGTGGATGGTGGTGTTTCAA TTCCAGCATATAAAAGGTGGGTCTCATCCTGCCCGGCATCGTCATCTTCTCTTACTGC ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCTGCCATATTATGTGGGGATCAGC CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC AAAITTITIGIGIAAAGGCIGICCATAICAICIACACIGICAACCICIACAGCAGCGITCIC 459 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC 519 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC crecreactaracercactreaectreceacercaeceaecacacareaercaece GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAA TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACAGAAGCGCCAAGGCCCTCAAGACG ATCGACTCCTTCCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 1359 1321 1201 1261 1381 1021 1081 399 421 579 759 819 879 841 939 901 961 541 639 601 669 661 721 781 481

8 8 8

엄

8 8

8 8

Д ò 셤

Db

ò

ò

g  $\delta$ g 8

AC145861 175370 bp DNA linear HTG 01-AUG-2003 Pan troglodytes chromosome UNK clone RP43-21D9, \*\*\* SEQUENCING IN PROGRESS \*\*\*, 39 unordered pieces. AC145661
AC145661
AC145661
AC145661
AC145661
AC145661
AC145661
AC145661
AC145661
AC145661
AC145661
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC16561
AC1 Direct Submission Submitted (01-AUG-2003) Genetics, Genome Sequencing Center, 4444 Forest Park Parkway, St. Louis, MO 63108, USA NOTE: This is a 'working draft' sequence. It currently consists of 39 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as arbitrary. Gaps between the contigs are represented as This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved. 5445: contig of 5345 bp in length 5445: gap of unknown length 17195: contig of 1175 bp in length 17295: agap of unknown length 33250: contig of 15955 bp in length 33350: gap of unknown length 45546: contig of 15296 bp in length 61992: contig of 16246 bp in length 61992: gap of unknown length 63423: contig of 1331 bp in length 63423: contig of 1331 bp in length 63666: contig of 1143 bp in length Center: Washington University Genome Sequencing Wilchages to 1737/0/ The sequence of Pan troglodytes clone Unpublished --- Genome Center 2 (bases 1 to 175370) Wilson, R.K. 5346 17196 17296 333251 33351 45547 45747 62093 63424 RESULT 3 AC145861 LOCUS DEFINITION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL ACCESSION

1680 1717

1658

셤 ò 셤

ò

셤

1621

1441 1539 1501 1599 1561

8 6 ઠ

d

ò

셤

ò g 8

ò

ద

g ઠે ያ ያ

ò

g  $\delta$ g

GITITITITITIGITGITGITGITTITITITITITICIGIAAAAGAIGGCACTTAAAACCAAA

1718 AGAGTAGATTGACTTCAGTCCCTACAAATGTACAGTCTTGTATTACATTGTTAATAAAA

1778 TCAATGATAAACTT 1791 TCAATGATAAACTT 1694

쉽

1691

8

AGAGTAGATTGACTTCAGTCCCTACAAATGTACAGTCTTGTATTACATTGTTAAAAAG

lengt bp in		own length  681 bp in length  572 bp in length  693 bp in length  694 length  695 bp in length  696 length  697 bp in length  697 bp in length  698 bp in length  698 bp in length  698 bp in length  698 bp in length  698 bp in length  699 bp in length  699 bp in length  699 bp in length  699 bp in length  699 bp in length  699 bp in length  699 bp in length  699 bp in length  699 bp in length  699 bp in length	length by in leng by in leng length by in leng length by in leng length by in leng length by in leng length by in leng length by in leng length length length length length length length length length length length	po in point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the point of the
unkn of 1		unkno of 16 of 18 of 18 of 18 of 18 of 18 of 18 of 20 of 20 of 20 of 20 of 20 of 20 of 20 of 20 of 30	unkno of 38 of 36 of 35 of 35 of 45 of 44 unkno of 63 of 63	f unkno g of 71 f unkno g of 80 rs oglodyt cglodyt s98"
gap cont		e cont	S S S S S S S S S S S S S S S S S S S	" yary " gap " cont alifi "gap "gap "genom "genom as "UNK 43-21D
64766 65994	6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	80000000000000000000000000000000000000	11111111111111111111111111111111111111	159988 167244 167244 167344 175370 175370 175370 175370 175370 15345 15345
4466	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	800055 8010065 8010465 8010465 8010465 801040 801040 801040 801040 801040 801040 801040 801040 801040 801040 801040 801040 801040	,4000000000000000000000000000000000000	00000000000000000000000000000000000000
* * *	* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	CCe ****

misc\_feature

FEATURES

5446. .17195 /note="assembly\_name:Contig101" /7256. .3250 /note="assembly\_name:Contig102" 33351. .45646 /note="assembly\_name:Contig103" 45747. .61992 /note="assembly\_name:Contig104" 62093. .63423 /note="assembly\_name:Contig16" 6203. .63423 72273. .73614.

/ note="assembly\_name:Contig67"
7315. .75186.
/ note="assembly\_name:Contig68"
75286. .76854.
/ note="assembly\_name:Contig69"
76955. .78413.
78514. .79564.
/ note="assembly\_name:Contig73"
78165. .79964.
/ note="assembly\_name:Contig73"
781846. .81745.
/ note="assembly\_name:Contig77"
81846. .8417.
/ note="assembly\_name:Contig77"
81816. .8419.
/ note="assembly\_name:Contig80"
8511. .86788
85011. .86788 Anote—"assembly\_name:Contigite faff, 64666 fnote="assembly\_name:Contigit", fnote="assembly\_name:Contigits", fnote="assembly\_name:Contigits", fnote="assembly\_name:Contigits", fnote="assembly\_name:Contigits", fnote="assembly\_name:Contigits", fnote="assembly\_name:Contigits", fnote="assembly\_name:Contigits", fnote="assembly\_name:Contigits", fnote="assembly\_name:Contigits", fnote="assembly\_name:Contigits", fnote="assembly\_name:Contigits", fnote="assembly\_name:Contigits", ### According to the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the contigent of the continuous of the contigent of the contigent of the contigent of the c /noce="assembly\_name:Contig95" 145270, .150696 /note="assembly\_name:Contig96" 150797, .159988 /noce="assembly\_name:Contig97" 160089, .167244 misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature

/note="assembly\_name:Contig98" 167345. .175370 /note="assembly\_name:Contig99" feature

961

GAACCCIGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 168101 168281 Treatcarcricardecaracrescarastes and restrance restrance 168161 168341 168461 168521 168641 CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 16881 168941 168581 168821 168761 4 120 240 300 360 420 540 600 780 180 9 840 900 960 480 720 9 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGGTACTGGTACTTTGGG ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA ATCGACTCCTTCATCCTTTGGGGGTCATCAAGCAAGGATGTGACTTCGAGGACTTCGTG CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG TICATCATCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 168282 AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTCAA GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA TTCCAGCATATAATGGTGGGTCTCATCCTGCCGGCATCGTCATCCTCCTGTTACTGC ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCTGCCATATTATGTGGGGATCAGC ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCTGCCATATTATGTGGGGATCAGC ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG CACAAGTGGATCTCCATCACAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG ATCATCATCTTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC 15; Gaps Length 175370; 22; Indels .; (i) DB Score 1599.8; Pred. No. 0; 0; Mismatches Query Match
Best Local Similarity 97.8%;
Matches 1668; Conservative 241 301 721 781 H 361 421 481 841 167982 61 168042 121 168102 181 168162 168222 168342 168402 168462 541 168522 601 168582 661 168702 168822 901 168882 168642 168762 g දු පු 8 B 8 엄 ò g 중 원 8 8 8 8 8 8 8 g 90 y 8 8 8  $\delta$ 

169061 169177 169417 169537 169597 1312 1372 1492 1549 168942 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGCGAAAGCGGGGGTGGACACTCTTCCGTC TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACACTTATGCAAAGACATATAT 169062 ATTATATATATATATATATATGATAAGAACTTTTTTTATGTTACACATTTTCCAGATATA 169122 AGAGACTGACCAGTCTTGTACAGTTTTTTTTTTTT----ATTGACTGTTGGGAGTTTATG 169358 TGAATAAAGCTAGCTGAATCCTCAGCTGTTGCTGCATAAATCTCTTCATTCCGAGGAGCA AGAGACTGACCAGTCTTGTTTTTTTTTTTTTTGACTGTTGGGAGTTTATG TITCATGIGAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCT TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCCTTATGCAAAGACTTATAT ---ATATATATATATATATGATAAGAACTTTTTATGTTACACATTTTCCAGATATA 169238 TTTCATGTGAATGAGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCT 169298 GTGTGTAGGACTGTAGAACTGTAGAAGGAAGAACTGAACATTCCAGAATGTGTGTAAAT CCCCACCCCCACCCCCACCCCCATTCTTAAATTGTTTAGGTTATGCTGTGATGG TICAGITITICAAGAGIAGATIGACITICAGICCCIACAAAIGIACAGICITIGIATIACAIT TGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCATAATCTCTTCATTCCGAGGAGCA 169658 GTTAATAAAGTCAATGATAAACTT 169682 GTTAATAAAAGTCAATGATAAACTT 1694 1137 1253 1550 169002 1081 1313 1373 169418 1493 169538 1610 1021 1197 1433 1670 g S G 6 B 6 유 장 역 8 8 8 ρp g g δ a ò ò  $\delta$ Db ò ď ò

AC147556 H85215 bp DNA linear HTG 17-DEC-2003 Mus musculus chromosome UNK clone RP23-480N14, WORKING DRAFT SEQUENCE, 11 unordered pieces.
AC147556 AC147556.1 GI:39979584
HTG; HTGS PRASE1; HTGS DRAFT; HTGS\_FULLTOP.
Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mamalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.
Wilson, R.K.
Wilson, R.K. RESULT 4 AC147556 LOCUS DEFINITION

The sequence of Mus musculus clone Unpublished (base 1 to 185215) Wilson, R. K. ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL

Park Forest 4444 Center, Wilson, R.K. Direct Submission Submitted (17-DEC-2003) Genome Sequencing /note="assembly\_name:Contigl28"
33785. 57713
/note="assembly\_name:Contigl29"
57814. 84551
/note="assembly\_name:Contigl30"
84652. 122285
/note="assembly\_name:Contigl31"
122386. 185215

misc\_feature misc\_feature misc\_feature misc\_feature

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NOTE: This is a 'working draft' sequence. It currently consists of 11 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                  Sequencing vector: M13, 0% Sequencing vector: plasmid; 100% Chemistry: Dye-primer ET; 0% of reads Chemistry: Dye-primer ET; 0% of reads Assembly program: Phrap; version 0.990319 Consensus quality: 194611 bases at least Q40 Consensus quality: 198294 bases at least Q30 Consensus quality: 198294 bases at least Q20 Insert size: 182000; agarose-fp Insert size: 252319; sum-of-contigs Quality coverage: 3.47 in Q20 bases; sum-of-contigs Quality coverage: 9.68 in Q20 bases; sum-of-contigs
                                                                 Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Summary Statistics ------
                                   Center: Washington University Genome Sequencing Center code: WUGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1220. .2637
/note="assembly_name:Contig103"
2738. .5059
/note="assembly_name:Contig122"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . .1119
'note="assembly_name:Contig51"
                                                                                                              /organism="Mus musculus"
mol type="genomic DNA"
/db_xref="texon:10090"
/chromesome="UNK"
/clone="RP23-480N14"
USA
Louis, MO 63108,
St.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1120
1220
1230
2738
2738
5060
6206
6206
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
113915
1139
  Parkway,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
```

```
92101 ATCGACTCCTTCATCCTTTTGGGGTCATCAAGCAAGGATGTGACTTCGAGAGCATCGTG 92160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91921 Trecadeararatadredredredredecedecardereterretereteratadratee 91980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        91560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             009
                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661 ATCATCATCTTAAGCTGTCACACTCCAAGGCCCACCAGAAGCCCAAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721 ACAGICAICCICAICCIAGCITICTITGCCIGCIGGCIGCCAIAITAIGIGGGAICAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACAAGTGGATCTCCATCACAGAGGCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       91561 CICITIGICALCACACICCCCTICIGGGCAGIIGAAGCCAIGGCIGACIGGIACITIGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   91741 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        91981 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                               301 AAATITITGIGIAAGGCTGICCATAICATCTACACTGICAACCTCTACAGCGGGGGGGGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTGTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601 TICCAGCATATAATGGTGGTGTCTGCTGCCCGGCATCGTCATCCTCTTCTTACTGC
                                                                                                                                                                                                                                             61 GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                        91381 GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                      121 ITCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                 91441 rrcarcarcricarreacrescaracrescaracrescaresarresresresrecresresres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421 AGGCCAAGGAAACTGGTGGCTGAAAAGGCAGTCTATGTGGGGGGTCTGGATCCCAGCCCTC
                                                                                                                                                  1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                               181 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                            15; Gaps
                                                            Query Match

94.4%; Score 1599.8; DB 2; Length 185215;
Best Local Similarity 97.8%; Pred. No. 0;
Matches 1668; Conservative 0; Mismatches 22; Indels 15; G
/note="assembly_name:Contig132'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                     ORIGIN
```

DP	92161 CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 92220	
λ̈	901 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAAGCATGCACTCAACCTCCATG 960	REFERENCE
qq	92221 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAGCTCTGCCCAGCATGCACTCAACTCCATG 92280	TITLE
δλ	961 AGCAGAGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACGTCTTCCGTC 1020	OCURNAL
ΟÞ	92281 AGCAGAGGCTCCAGGCTCAAGGATCCTTTCCAAAGGAAAGCGGGGTGGGACACTCTTCCGTC 92340	
δ,	1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCCTTATGCAAAGACTTATAT 1080	FEATURES
qq	92341 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACACTTATGCAAAGACATATAT 92400	oinos
ò	1081 AATATATATATATATATAAAAAAACTTTTTATGTTACACATTTTCCAGATATA 1136	
QO	92401 AATATATATATATATATATATAAGAACTTTTTTATGTTACACATTTTCCAGATATA 92460	
ò	1137 AGAGACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATG 1196	CDS
Db	92461 AGAGACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTTATTGACTGTTGGGAGTTTATG 92516	
ò	1197 TICCICIAGITITIGIGAGGITIGACITAATITATATAATATIGITITGITTG 1252	
QD	92517 TICCTCTAGTITITGTGAGGTTGACTTAATTATAAAAAACTTTTTTTTGTTTG	
δ	1253 TITCATGIGAATGAGCGTCTAGGGAGGACGGCCAGGCCAG	
QQ	92577 TITCAIGIGAATGAGIGTCTAGGCAGACCIGIGGCCAAGITCTIAGTAGCIGITIAICT 92636	
ζŎ	1313 GTGTGTAGGACTGTAGAACTGTAGAAGAAACAAACTGAACATTCCAGAATGTGTGGTAAAT 1372	
Db	92637 GTGTGTAGGACTGTAGAACTGTAGAGGAAGAACTGAACATTTCCAGAATGTGTGTG	OKIGIN
λō	1373 TGAATAAAGCTAGCCGTGAACCTCGTGCTGCTGCTGCTTCTTTCGAGGAGCA 1432	Guery Ma Best Loc
QQ	92697 TGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCATAATCTCTTCATTCCGAGGAGCA 92756	אסרכזופה
ò	1433 CCCCACCCCACCCCCACCCCACCCCATTTTTAAATTGTTTGGTTATGCTGTGTGTG	Š Š
QΩ	92757 CCCCACCCCACCCCACCCCACCCCATCTTAAATIGTTIGGTTATGTTAT	a :
ολ	1493 TITGITIGGITITITITGITGITGITGITGTITITITI	à é
qq	92817 TITGITIGGITITITITITITGITGITITITGITITITGITITITITITITITITGIAAAAAAGAIGGCAC 92876	3 8
λ̈́o	1550 TTABABACCAGABACTGGTGGTGGTAGABARGCTGGGGGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	5 6
qu	92877 TTAAAACCAAAGCCTGAAATGGTGGTAGAAATGCTGGGGGTTTTTTTT	g ;
ò	1610 TICAGITITICAAGAGIAGAITGACTICAGICCCIACAATGIACAGICTIGIATTACAIT 1669	Š 1
QQ	92937 TICAGITITCAAGAGIAGATIGAITICACICCCIACAATGIACAGICITGIAITACAIT 92996	gg (
ò	1670 GTTAATAAAAGTCAATGATAAACTT 1694	Š 1
Db		g O
		ċ

Musical Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal M ROD 05-FEB-1999 linear AB000803 1809 bp mRNA Mouse mRNA for murine CXCR-4, complete cds. AB000803 RESULT 5
ABO00803
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM AUTHORS TITLE REFERENCE

540

481 573

632

/produce="murine cxcr-4"
/produce="murine cxcr-4"
/brotein\_id="marine1871"
/db\_xxef="d1:1816446"
/translation="MEPISVSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP
/translation="MEPISVSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP
TYTFIIFFLGTYGNGIVILAWGYQKEKKENSWPTCKFRLHSLYSADLEVTLPFWANDAMA
TYTFIIFFLGTYGNGIVILAWGYQKEKTRSWPTCKFRLHSRATUSQRERKLLAREAVYV
GWWIPALLITIPDFIFADVSQGDISQGDDRYICDRLYPDSLMMVVPQFQHIMVGLVLP
GIVLGYCTGIISKGHGRRKHQRRKALKTTVYLILAFFACWLPYVOISIDSFILLGY
INCQCDPESIVHWMISITEALAFFHCLLNFILYAFLGAKFKSSAQHALNSWSRGSSLK
LLSKGGRGGHSSVSTFSESSSSFHSS" 4. 420 512 120 212 121 ITCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180 272 240 273 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 332 300 452 480 93 ATATACACTICIGATAACTACTCTGAAGAAGTGGGTTCTGGAGACTATGACTCCGAACAAG 152 392 301 AAATTITIGIGIAAGGCIGICCATAICAICIACACIGICAACCICIACAGCAGCGITCIC 360 572 9 361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 453 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCTATTGTCCACGCCACCAACAGTCAG 1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG 61 GAACCCTGCCTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 153 GAACCCTGCTTCCGGGATGAAAGGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 181 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTC 241 CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 333 CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCTC 16; Gaps co- receptor, that is expressed on leukocyte and other organs Unpublished Chaesa to 1809)
Suzuki, G.
Suzuki, G.
Direct Submission
Direct Submission
Submitted (29-JAN-1997) Gen Suzuki, National Institute of
Radiological Sciences, Division of Radiation Health; 4-9-1,
Anagawa, Insge-ku, Chiba, Chiba 263, Japan
(E-mail:gsuzuki@unmx1.nirs.go.jp, Tel:043-251-2111,
Fax:043-234-1736)
Location/Qualifiers DB 10; Length 1809; Match
ocal Similarity 97.7%; Pred. No. 0;
91666; Conservative 0; Mismatches 23; Indels 1. .1809
| organism="Mus musculus"
| wol type="mxN" |
| strain="57B1-6" |
| db\_xxef="taxon:10090" |
| tissue\_type="thymus" |
| dev\_stage="E17" |
| note="fusin" | /codon\_start=1 ö g ර සි ර 9 6 P

```
polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     111
                    1670
      1708
                                 1768
                                                       RESULT 6
MMLESTRPT
LOCUS
DEFINITION
                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                               JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                         REMARK
COMMENT
FEATURES
                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                    ò
                                 g
                                                                                                                                                                                                                                                                                         1196
                                                                                                                                                                                       1052
                                                                                                                                                                                                     TCCACGAAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                               1172
                                                                                                                                                                                                                                                              1136
                                                                                                                                                                                                                                                                            1232
                                                                                                                                                                                                                                                                                          AGAGACTGACCAGTCTTGTGAGTTTTTTTTTTTTTAATTGACTGTTGGAGTTTATG 1196
                                                                                                                                                                                                                                                                                                                      TICCICIAGITITIGIGAGGITIGACTIAATITIATAIAA.---TIGITITITGITIG 1252
                                                                                                                                                                                                                                                                                                                               1312
                                                                                                                                                                                                                                                                                                                                                                 1407
                                                                                                                                                                                                                                                                                                                                                                               1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1493 TITGITIGGITITITITI --GIIGITGITGITGITTITITITITIGIAAAAAGAIGGCAC 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1669
                                                                                                                                            900
                                                                                                                                                                         960
600
             692
                           660
                                        752
                                                       720
                                                                     812
                                                                                    780
                                                                                                  872
                                                                                                                840
                                                                                                                              932
                                                                                                                                                           992
                                                                                                                                                                                                                                                                                                                                                                                                                                               1528 CCCCACCCCACCCCACCCCATTTTAAATTGTTTGTGTGAGGTGTGATGG
                                                                                                               A----ATAIATATATATATATGATAAAGAACTITITIATGITACACAITITCCAGATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             813 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGGCTGGCTATTATATGTGGGGATCAGC
                                                                                                                                                                         CICTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                 CICIAIGCCIICCICGGGGCCRAGIICRAAAGCICIGCCCAGCAIGCACICAAG
                                                                                                                                                                                                                                          ATATATATATATATATATATATAGATAAGAACTTTTTTATGTTACACATTTTCCAGATATA
                                                                                                                                                                                                                                                                                                                                                   TITCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTICTTAGTAGCTGTTTATCT
                                                                                                                                                                                                                                                                                                                                                           TTTCATGTGAATGAGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                        1610 TICAGITITICAAGAGIAGATIGACITCAGICCCIACAAAIGIACAGICITGIATIACAIT
       633 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                           TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC
GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                  ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCCTGCCATATTATGTGGGGATCAGC
                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                           1137
                                                                                                                                                                                                                                                                                                          1233
                                                                                                                                                                                                                                                                                                                                                    1253
                                                                                                                                                                                                                                                                                                                                                                  1348
                                                                                                                                                                                                                                                                                                                                                                                              1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1648
                                                                                    721
                                                                                                                                                                                        993
                                                                                                                                                                                                                                                 1113
                                                                                                                                                                                                                                                                            1173
                                                                                                                                                                                                                                                                                                                       1197
                                                                                                                                                                                                                                                                                                                                      1288
                                                                                                                                                                                                                                                                                                                                                                                                                                        1433
541
                            601
                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                     \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8 8
                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                 DP
                                                                                                                                                                                                                                                                                                                                                8 6
                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원장
          셤
                           8
                                     QQ
                                                    8
                                                                    g
                                                                                               셤
                                                                                                                             셤
                                                                                                                                           à
                                                                                                                                                        ద
                                                                                                                                                                         ò
                                                                                                                                                                                    Бb
                                                                                                                                                                                                  8
                                                                                                                                                                                                                               જ
                                                                                                                                                                                                                                                              8
                                                                                   8
                                                                                                                ठ
```

```
receptor"

(bp.ctein_id="CAA67894.1"

(bb.xref="GOA;P70658"

(db.xref="GOA;P70658"

(db.xref="GOA;P70658"

(db.xref="GOA;P70658"

(db.xref="GOA;P70658"

(db.xref="GOA;P70658"

(db.xref="GOA;P70658"

(db.xref="GOA;P70658"

(db.xref="GOA;P70658"

(db.xref="GOA;P70658"

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MEPLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xref="MERLSCPES")

(db.xre
                                                                                                                                                                                                                                                                                                                                                                                                                                                   MMLESTRPT 1575 bp mRNA linear ROD 11-NOV-1996
M.musculus mRNA for leukocyte-dervied seven transmembrane domain
receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ω
••
Moepps, B., Frodl, R., Kessler, H. and Gierschik, P.
cDNA cloning and genomic organization of a leukocyte-derived seven
transmembrane domain receptor (LESTR) from mouse: a murine
homologue of the human HIV-1 entry cofactor fusin
Unpublished
2. (Dases 1 to 1575)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    X99582.
X9582.1 GI:1666648
X9582.1 GI:1666648
Whis musculus (house mouse)
Whis musculus (house mouse)
Whis musculus
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Moepps, B.
Direct Submission
Submitted (19-70f-1996) B. Moepps, Universitaet Ulm,
Submitted (19-70f-1996) B. Moepps, Universitaet Ulm,
Pharmacology/Toxicology, Albert-Einstein Allee 11, D-89081 Ulm,
Revised by author 11-NOV-96
On Nov 12, 1996 this sequence version replaced gi:1657351.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         seven transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1575,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match

81.7%; Score 1383.8; DB 10; Lengt
Best Local Similarity 98.3%; Pred. No. 2.8e-293;
Matches 1434; Conservative 0; Mismatches 12; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.1575
/ organism= Mus musculus"
/mol_type="mRNA"
/strain="B6CBA"
/db xxef="axon:10090"
/haplorype="diploid"
/sex="female"
/tissue_type="thymus"
/dev stage="6-8 weeks old"
1.7575
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
/gene="lestr"
                                                                                                                                             GITAATAAAGTCAATGATAAACTT 1694
                                                                                                                                                                                                                                             1792
```

Page 10

661 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCCCAGAAGCGCAAGGCCCTCAAGACG 721 ATCATCATCTCTAAGCTGTCACCTCCAAGGGCCACCAGAAGCGCAAGGCCTCAAGACG 721 ATCATCATCTCTCAAGCTGTCCACCTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACGCACCAGAACG 831 ACAGTCATCCTCATCCTTTTTTTTTTTTTTTTTTTTTTT
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

```
AIAIAAAIA-----TUGITITITI 1247
|||||||||
AIAIAAAIACCITITITITIGITI 1370
TITITITATIGACIGIIGGGAGIT 1310
                                                                                             ACTGAACATTCCAGAATGTGTGG 1367
                                                                                                                                                                                                        CTGCATAATCTCTTCATTCCGAG 1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ersitaet Ulm,
n Allee 11, D-89081 Ulm, FRG
placed gi:1666646.
                                                                                                                                                                                                                                                                                                                                                              linear ROD 02-APR-1997
ied seven transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ersitaet Ulm,
n Allee 11, D-89081 Ulm, FRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rschik,P.
f a leukocyte-derived seven
rom mouse: a murine
ctor fusin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Vertebrata; Euteleostomi;
thi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                     smembrane domain receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ren transmembrane domain
```

```
781
                                                                                                 841
      721
                                                                                                                                              106
                                                                                                                                                                                                                                                                                                                                          1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 8
AC122097
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                   8 & B
                                                                                          8 6 6
                                                                                                                                                                8 & 8
                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                            g
     ò
                                                                                                                                                                                                                                    ⋧
                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
/db_xref="G1:1666647"
db_xref="G0A:770658"
/db_xref="SMISS-PROT: P10658"
/db_xref="SMISS-PROT: P10658"
/translation="MBPISV81YTSDNYSEEVGSGDYDSNXEPCFRDENVHFNRIFLP
/translation="MBPISV81YTSDNYSEEVGSGDYDSNXEPCFRDENVHFNRIFLP
DWYFORFLOCKAVHITYTVNAGYOKETASMTDKYKLHISVSHDALLATIPEPRAVDANA
DWYFORFLOCKAVHITYTVNAYSSVILIAFISLDRYLAINTHAFRAYVY
GVWIPPALLITIPDFIPADVSGGDISGGDDRYICDRLYPDSLMMVVFQFQHINVGLVLP
GINGLIGSKASHSKANAKTTVYLILAFFACKH.PYVGISIDSFILLGY
ILLGYGYDFBSIVHKMISITEALAFFHCLINPILYAFLGAKFKSSAQHALNSMSRGSSLK
ILSKGKRGGHSSVSTESESSSFHSS"
                                                                                                                                                                                                                                                                                                                                                                           2425
                                                                                                                                                                                                                                                                                                                                                                                                                          2485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3025
                                                                                                                                                                                                                                                                               ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           009
                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                  2366 GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CICTITGICATCACACICCCCTICTGGGCAGTIGATGCCATGGCTGACTGGTTGGAGCTGGTTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCCTGGCCTTCATCAGCCTGGACCGCGTACCTCGCTATTGTCCACGCCACCAACAGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATGACAGGTACATCTGTGACCGCTTTACCCCGATAGCCTGTGGATGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                     1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                    ATATACACTTCTGATAACTACTCTGAAGAAGTGGGTTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCTTTGTCATCACACTCCCCTTCTGGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCGGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCCAGCATATAAATGGTGGGTCTCGTCCTGCCCGGCATCGTCATCCTCTCTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                  TTCATCATCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCATCATCTCAAGCTGTCACACTCCAAGGGCCACAGAAGCGCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCCAGCATATAATGGTGGGTCTCCTGCCCGGCATGGTCATCCTCTCTGTTACTGC
                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 98.3%; Pred. No. 3e-293;
Matches 1434; Conservative 0; Mismatches 12; Indels 13;
                                                                                                                    105. .2305
/gene="lestr"
/note="splice variant/intron"
111. .2305
/gene="lestr"
/number=1
2306. .>3770
/number=2
3693. .3698
                                                                                                                                                                                                        polyA_signal
ORIGIN
                                                                                                                                                                                                                                                                                                                            2306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2726
                                                                                                                                                                                                                                                                                                                                                                                                                        2426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2846
                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                          intron
                                                                                                                                                                                             exon
                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                dd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  D
D
                                                                                                                                                                                                                                                                                                                                                 9
2
2
                                                                                                                                                                                                                                                                                                                                                                                             8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8 8
```

```
3325
                                                                                                                 3145
                                                                                                                                                                                             3205
                                                                                                                                                                                                                                                                                                                 1020
                                                                                                                                                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                                                                                                                                                    3385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AC122097
190149 bp DNA linear HTG 15-NOV-2002
Rattus norvegicus clone CH230-108A24, WORKING DRAFT SEQUENCE, 4
unordered pieces.
                                                                                                                                                                                                                                     960
                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rattus.

( Dassel to 190149)

Muzny, D. Marie., Metzker, M. Lee., Abramzon, S., Adams, C., Alder, J.,

Allen, C., Allen, H., Alsbrooks, S., Amin, A., Anguiano, D.,

Anyalebechi, V., Aoyagi, A., Ayodeji, M., Baca, B., Baden, H.,

Baldwin, D., Bandaranaike, D., Barber, M., Barnstead, M., Benahmed, F.,

Biswalo, K., Blair, J., Blankenburg, K., Blyth, P., Brown, M.,

Bryant, N., Buhay, C., Burch, P., Burrell, K., Calderon, E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AC122097
AC122097 4 GI.25008263
HTG; HTGS PHASE1; HTGS DRAFT; HTGS_FULLTOP.
Rattus norvegicus (Norway rat)
Rattus norvegicus (Norway rat)
Rattus norvegicus (Nordata; Craniata; Vertebrata; Euteleostomi;
Rukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae;
                                                                                                3086 ATGGACTCCTTCATCCTTTTGGGGGTCATCAAGCAAGGATGTGGACATCGAGAGCATCGTG
                                                                                                                                                                            3026 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGGCTGCCATATTATGTGGGGATCAGC
                                                                                                                                                                                                                                                          961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGAGTGGACACTCTTCCGTC
                                                                                                                                                                                                                                                                                                                                      3626 TATCTGTGTGTAGGACTGTAGAACTGTAGAGGAAGAAGAACTGAAACTTCCAGAATGTGTGG
                                                                                                                                                         CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCCATC
                                                                                                                                                                                                                                     CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3386 ATATATATATATATATATAGATAAAGAACTTTTTTATGTTACACATTTTCCAGATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1193 TATGTTCCTCTAGTTTTTGTGAGGTTTGACTTAATTTATATAAATA-----TTGTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATCTGTGTGTAGGACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGG
ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCCATATTATGTGGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081 A----ATATATATATATATGATAAAGAACTTTTTTATGTTACATATTTCCAGATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGCACCCCACCC 1446
```

REFERENCE AUTHORS TITLE JOURNAL

COMMENT

Direct Submission

Submitted (15-NOV-2002) Human Genome Sequencing Center, Department of Moderolar and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
ON NOV 15, 2002 this sequence version replaced gi:23269619.
The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assemble using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold in the Sequence may extend beyond the ends of the clone and there may be sequence may extend beyond the ends of the clone and there may be sequence contigs and of the clone and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome Cardenas, V., Carter, K., Cavazos, I., Ceasar, H., Center, A., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Chardo, J., Davis, C., Davy-Carroll, L., De Anda, C., Dederich, D., Delagado, O., Denson, S., Deramo, C., Ding, Y., Dinh, H., Divya, K., Drapara, C., Finley, M., Flagg, M., Forser, F., Fanger, F., Fanger, F., Fanger, F., Fanger, C., Franklor, M., Garcia, A., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Garcia, M., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, J., Mando, Direct Submission
Submitted (22-MAY-2002) Human Genome Sequencing Center, Department
of Molecular and Hunan Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
3 (bases 1 to 190149)
Rat Genome Sequencing Consortium. Unpublished 2 (bases 1 to 190149) Worley, K.C.

Center: Baylor College of Medicine Center code: BCM

NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank\_draft\_data.html).

NOTE: This is a "working draft' sequence It currently consists of 4 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved. 40067; contig of 40067 bp in length 40068 40167; gap of unknown length 40168 114660; contig of 74493 bp in length 11461 114760; gap of unknown length 114761 188186; contig of 73426 bp in length 188187 188286; gap of unknown length 188287 190149; contig of 1863 bp in length Location/Qualifiers 1. .190149 /organism="Rattus norvegicus" /mol\_type="genomic DNA" /db\_xref="taxon:10116" /clone="CH230-108A24" Project Information Contact: hgsc-help@bcm.tmc.edu source FEATURES ORIGIN

Query Match 69.0%; Score 1168.2; DB 2; Length 190149; Best Local Similarity 84.6%; Pred. No. 9.1e-246; Matches 1456; Conservative 0; Mismatches 143; Indels 122; Gaps 1 ATATACACTTCTGATAACTACTCTGAAGAGTGGGGTCTGGAGACTATGACTCCAACAAG 20662 ATATACACTTCGGATAACTACTCCGAAGAAGTAGGGTCTGGAGACTATGACTCCAACAAG 20721

셤

121 TICATCATCTTTTAGATAGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180
20782 HTTATCATCTTCTTGACTGGCATAGTGGCAATGGGTTGGTAATCCTGGTCATGGGTTAC 20841 20722 GAACCCTGCTTCCGGGATGAAAACGAAAACTTCAACAGGATCTTCCTGCCCACCATCTAT 20781 61 GAACCCTGCTTCCGGGATGAAACGTCCATTCAATAGGATCTTCCTGCCCACCATCTAC 120 181 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC op ð CD 8 ò

20902 CICTTIGICALCACACTCCCCTICTGGGCAGTGGACGCCATGGCTGACTGGTACTTTGG 20961 CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 241 d à 원 상

421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCTTC 21082

쉱

```
/product = fusin homolog"

/product = fusin homolog"

/protein id="AABO7155.1"

/db xref="u1:127135"

/translation="MEPISVSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP

/translation="MEPISVSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP

THYPITELTOTIVGNGLVILLAKASMPDKYRALMSNADAMA

DWYFORFLCKANHIYTYUNLYSSVILLAFISLDRYLALMSYDRARMSYDAMA

DWYFORFLCKANHIYTYUNLYSSVILLAFISLDRYLALMSYDRARMANVFOFQHINVGLILL

GVWIPALLITIPDFIFADVSQGDISQGDDRYICDRLYPDSLWMVVFOFQHINVGLILL

GRACHESTANTKAN SITEALAFFHCCLNPILLAFFACWLEYYOGISIDSFILLGV

INCQCOPFESTVHKWASTERESSSFFHSS"

LLSKGKRGGHSSVSTESESSSFFHSS"
                                                                                                                                                                                                                                                                        ROD 30-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180
                                                                                                                                                                                                                                                                                                                                                                Mus musculus (house mouse)
Mus musculus
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
I (Dases I to 1223)
Heesen,M., Bernan,M.A., Benson,J.D., Gerard,C. and Dorf,M.E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Harvard Medical School, 200
USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                             -----GITITITICITICAGITITICAGGGIGGATIGATITICAGIACCIACAAIGIAC
CTGTAAAAGATGGCACTTAAAACCAAAGCCTGAAATGGTGGTAGAAATGCTGGGGGTTTTT
                                                                         TTTGTTTGTTTTTTTTTTTTTTTTTCAAGAGTAGATTGACTTCAGTCCCTACAAATGTAC
                       22142 CTGTAGAAGATGGCACTTAAAACCAAAGCCTGAAATGGT-ATAGAAATGCTGG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     68.9%; Score 1166.6; DB 10; Length 1223;
.larity 99.7%; Pred. No. 1.5e-245;
Conservative 0; Mismatches 4; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               spanning receptor;
                                                                                                                                                                                                                                                                      MMUS9760 1223 bp mRNA linear Mus musculus fusin homolog mRNA, complete cds. US9760
                                                                                                                                                                                 22287
                                                                                                                                            1654 AGTCTTGTATTACATTGTTAATAAAAGTCAATGATAAACTT 1694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 (Bases 1 to 1223)
Hessen, M., Berman, M.A., Gerard, C. and Dorf, M.E. Direct Submission
Submission
Longwood Avenue, Boston, MA 02115, USA
Longwood Avenue, Boston, MA 02115, USA
                                                                                                                                                                   AGICTIGIATTAIGITGTTAATAAAAGTCAATGGTAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Immunol. 157 (12), 5455-5460 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30. __1109
/note="seven transmembrane
chemokine-receptor like"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1. .1223
/organism="Mus musculus"
/mol_type="mxNa"
/strain="129/Sv"
/db_xref="taxon:10090"
30._.1109
                                                                                                                                                                                                                                                                                                                               GI:1527134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                 U59760.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  co-factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97113334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8955194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Sim
Matches 1169;
                                                                         1594
   1534
                                                                                                             22194
                                                                                                                                                                                   22247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    171
                                                                                                                                                                                                                                     RESULT 9
MMU59760
LOCUS
DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                 qq
                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ∂
                               셤
                                                                      ઠે
                                                                                                                                        Š
   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22026
                                                                                                                                                                                                                                                                            21366
                                                                                                                                                                                                                                                                                                                                                                                                                          21486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22141
                                                                                                                                                                                                    21306
                                                                                                                                                                                                                                                                                                                                                  21426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                     ---GGCAGGTACATCTGTGACCGCCTTTACCCCGGACAGCCTGTGGATGGTGTTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21247 TTCCAGCACATCATGGTGGGTCTCATCCTGCCGGGCATCGTCATCCTGTCCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                 21427 ATCGAITCCTTCTTTTTGGAGGTCAICAAGCAAGGAIGTGAGTTCGAGAGCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21487 CACAAGTGGATCTCCATCACGGAGGCCCTCGCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11667 TCCRCAGAGTCAGAATCCTCAAGTTTTCACTCCAGCTAACACTTACGCAAAGACATATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081 AATATATATATATATAT-----GATAAAGAACTTTTTTATGTTACACATTTTTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21907 TTTTTCTCTTGTTTGTCTGTTTCACGTGAATGAGTGTCTAGGCAGGACCTGTGGCCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----GTTTCT
                                                                                                                                                                   TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC
                                                                                                                                                                                                                                           ATCATCATCTAAGCTGTCACACTCCAAGGGCCACCAGGAGCGCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                          21307 ATCATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACT
                                                                                                                                                                                                                                                                                                                 ACAGICAICCICAICCIAGCITICIIIIGCCIGCIGCCACAIAIIAIGIGGGGAICAGC
                                                                                                                                                                                                                                                                                                                                     21367 ACGGTCATCCTTATCCTGGCTTTCTTTGCCTGCTGGCTACCGTATTACGTGGGGAATCAGC
                                                                                                                                                                                                                                                                                                                                                                                     ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCAGAGGCTCCAGGCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRAIGTICCTCT-----AGTITITGTGAGGTITGACTTAATTTATATATAT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----TGTTTTTTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTTAGTAGCTGTTTATCTGTGTGTAGACTGTAGAACTGTAGAGGAAGAAACTGAACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1354 TCCAGAATGTGTGTGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCATAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22027 recadarerereraaareeearaaeeradaaereacereaeerereeereaaraar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ---ceccccccccccccrrccrcaarrerr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                        21142 CTCCTGACTATCCCTGACATCATCTTCGCCGGATGTCAGCCAGGGGGAC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         regridicterere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1294 '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22121
                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1414
                                                                                                                              21190
                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22087
                                                                                                                                                                                                                                           661
                       481
                                                                                                                                                                   601
```

g

8 8

8 g à ద  $\delta$ 

के निकं

g

8 8

B & B

8 g

ద

g

8

g ð 셤 ઠે

8

g

8 8

8 6

ò

ö

110 120 170

9

DEFINITION Mus musculus lcr-1 gene, exon 2.  ACCESSION 280113.1 GI:1655638	JOURNAL Unpublished REFERENCE Lipp.M. AUTHORS Lipp.M. TITLE Direct Submission JOURNAL Submitted (11-SEP-1996) Martin Lipp, Max-Delbrueck-Center for Molecular Medicine, MDC, Robert-Roessle-Strasse 10, BERLIN-BUCH, D-1312, GERMANY Libers Location/Oualitiers	r C @	Intron <129 /number=1 2601422 /gene="lcr-1" exon 260>1422	/gene="lcr-1" /product="CXCR-4" /standard_name="CXC chemokine receptor 4" /standard_name="CXC chemokine spr-1" /funcheren	1151.8; DB 10; Length 1422; No. 2.7e-242;	VALIVE 0; MISMACCHES 7; INGELS 0; GALES TOTAGACTATA TOTAGACTA CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL	0y 61 GAACCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120	Oy 121 TTCATCATCTTGACTGGCATAGTCGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180	QY         181 CAGAAGATGAAGGAATGACGGACAAGAACCAGGCTGCACCTGTCAGTGGCTGACCTC         240           Db         440 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC         499	Qy 241 CTCTTTGTCALCACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTTTGGG 300	OY 301 AAAITITIGIGIAAGGCIGICCATAICATCIACACCICGACACGCGTTCTC 360	QY         361         ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA         420
Oy  181 CAGAAGAAGCTAAGGACATGACGGACAGCTGCACCTGTCAGTGGCTGACCTC 231 CAGAAGAAGACTAAGGACATGACGGACAGCTGCACCTGTCAGTGGCTGACCTC 231 CAGAAGAAGCTAAGGACATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 290  241 CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGA	Oy         361 ATCCTGGCCTTCATCAGCCGGGACCGGCATTGTCCACGCCACCAACAGTCAA 420           Db         411 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 470           Oy         421 AGGCCAAGGAAACTGGTGGTGAAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCTC 480           Db         471 AGGCCAAAGAAAACTGGTGGTTGAAAAAGGCAGTCTAATGTGGGGTCTGAATCCCAACCCTC 530	481 CTCCTGACTATACCTGACTTCATCTTGCCGACGTCAGGGGGGCACATCAGTCAG	DD 591 GAIGACAGGIACAICHGIGACGCCFFIACCCGGAIAGCCFGIGGGIGGIGGIGGITICAA 550 Qy 601 TTCCAGCAIATAATGGIGGGTCTCATCCTGCCGGCATCGTCATCCTCCTCTGTTACTGC 660 Db 651 TTCCAGCAIATAATGGIGGGTCTCATCCTGCCGGCATCGTCATCCTCTTCTGTTACTGC 710	OY 661 ATCATCATCATAGCTGTCACACTCCCAAGGGCCACCAGAAGGCCCTCAAGACG 720 	721 ACAGICATCCTCATCCTAGCTTTCTTTGCCTGGCTGCCATATTATGTGGGGATCAGC	4 3 4	Db 891 CACAAGGGATCACAACAAGAGGCCCTCTTTTTTCACTGTTTTTTTT	TTCTTCHGGCCAAGTTCAAAAGTCTGCCAGCAGTGCACTCHCTTCAAAAGTCTCTGCCAAGGGGGGGGGG	4 ₽		31 A	C)

ö ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420 319 SAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120 379 180 439 240 retrigicalcacacrecerrereseasarrearesearesersacreseracriness 300 559 360 619 AGGCCAAGGAAACTGCTGGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC 480 09 PTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC TCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTGGG AAATTTTTGTGTAAGGCTGTCCATATCTACACTGTCAACCTCTACAGCAGCGTTCTC NATITITION OF A PROCESS OF THE CANONICAL CONTRACTOR CONTRACTOR CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CONTRACTOR CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONICAL CANONIC ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG PAGANGANGCTANGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC O; Gaps 68.0%; Score 1151.8; DB 10; Length 1422; imilarity 99.4%; Pred. No. 2.7e-242; Conservative 0; Mismatches 7; Indels 0; 620 421 g ò

linear ROD 31-OCT-1996

DNA

1422 bp

MMLCR13

RESULT 10 MMLCR13 LOCUS

lue May IS 13:54:45 2004

```
16
                                                                                                                                                                                                                                                                                                                    exon
                                                                                                                                                                                                                                                                                                                                                     exon
                                                                                                     gene
COMMENT
FEATURES
                                                                                                                       CDS
                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                      1099
                                                                                                                                                                                                                                                                                                                                                              1219
                                                                                                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                                                                                                                                                                          1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1039
                                                                                                                                                                                                                                                                                            841 CACAAGTGGATCTCCATCACAGAGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 900
                                                                                                                                                                                                                                                                                                                                                                                                                                1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                             979
                                                                                                                                                                                                    780
                                           799
                                                                   600
                                                                                                              999
                                                                                                                                   919
                                                                                                                                                         720
580 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC 739
                    860 TICCAGCATATAATGGTGGTCTCATCCTGCCCGGCATCGTCATCCTCCTGTTACTGC
                                                                                                                                                                    781 ATCGACTCCTTCATCCTTTTQGGAGTCATCAAGCAAGGATGTGACTTCGACAGCATTGTG
                                                                                                                                                                                                                                                               040 ATGACTCCTTCATCCTTTTGGGAGTCATCAAGGAAGGATGTGACTTCGAGAGCATGTG
                                                                                                                                                                                                                                                                                                                                                    1160 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAGCTCTGCCCAGCATGCACTCAAGATCAACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                  1220 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                              1280 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT
                                                                                                             TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC
                                                                                                                                                                                                    CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                    961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC
                                                                541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTTTTCAA
                                                                               800 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTTGTGTTTTCAA
                                                                                                                                                        661 ATCATCATCTTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                        106
               ò
                                      qq
                                                               8
                                                                                  a
                                                                                                             ò
                                                                                                                                a
                                                                                                                                                                         Dp
                                                                                                                                                                                                                                              \ddot{o}
                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                              ď
                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                   ð
```

ROD 18-NOV-1997 280112.1 GI:2632100
CXC chemokine receptor 4; CXCR-4; lcr-1 gene...
Mus musculus (house mouse)
Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Musculus
1 (bases 1 to 1180)
Schubel,A., Burgstahler,R. and Lipp,M.
The mouse homologue of the human HIV coreceptor CXCR-4 (FUSIN):
High expression in thymus and lymphoid tissues Direct Submission Submitted (11-SEP-1996) Martin Lipp, Max-Delbrueck-Center for Molecular Medicine, MDC, Robert-Roessle-Strasse 10, BERLIN-BUCH, D-131122, GERMANY linear mRNA 1180 bp Mus musculus lcr-1 gene. Z80112 2 (bases 1 to 1180) Lipp, M. MMLCR12 RESULT 11
MMICR12
LOCUS
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL

```
/gunerion="receptor for chemokine SDF-1"
/standard_name="CXC chemokine receptor 4"
/codon start="1"
/product="CXCR-4"
/product="CXCR-4"
/product="CXCR-4"
/product="CXCR-4"
/product="CXCR-4"
/protein_id="CAB02202.1"
/db_xref="GA1:1542889"
/db_xref="GA1:1542889"
/db_xref="GA1:1542889"
/db_xref="GA1:1542889"
/db_xref="GA1:1542889"
/db_xref="GA1:17478DNYSERVGSGDYDSNKEPCFRDENVHFNRIFLPTI
/franciscalation="MEPIGITYSENYSERLIABRAPATHATHAGNEPRATICHETI
/franciscalation="MEPIGITYSENYSENTLIAPRATHATHAGNEPRATICHETI
/franciscalation="MEPIGITYSENTLIAPRATHATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPARTHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEPRATHAGNEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAACCCTGCTTCCGGGATGAAAAGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    256 CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 AAATTTTTGTGTAAGGGTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          316 AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2; Gaps
Length 1180;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 67.3%; Score 1139.8; DB 10; Lengt. Best Local Similarity 99.2%; Pred. No. 1.1e-239; Matches 1156; Conservative 0; Mismatches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16. .>1180
/gene="lcr-1"
/number=2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <1. .15
/gene="lcr-1"
/number=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
```

```
961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGGTGGACACTCTTCCGTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                               976 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAAGCGGGGTGGACACTCTTCCGTC 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021 TCCACGGAGTCACAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081 AATATATATATATATATGATAAAGAACTTTTTATGTTACAC--ATTTTCCAGATATAAG 1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1096 AATATATATATATATATATATATAAAGACTTTTTTATGTTACACCATTTTTCCAGATATAAG 1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1036 recaegeagreagaarecreeagrirreacreeageraaceerrargeaaagaerrarar 1095
                                          600
                                                                       615
                                                                                                  9
                                                                                                                                                          720
                                                                                                                                                                                                                              ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGGCTGCCATATTATGTGGGGGGATCAGC 795
                                                                                                                                                                                                                                                                   781 ATCGACTCCTTCATCCTTTTGGGGGTCATCAAGCAAGGATGTGACTTCGAGGGATTGTG 840
                                                                                                                                                                                                                                                                                                                             CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960
                                                                                                                                                                                                                                                                                                                                                                                                    916 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 975
616 TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC 675
                                                                                                                                                                      676 ATCATCATCTAAGCTGTCACACTCCAAGGCCCACAGAAGCGCAAAGGCCCTCAAGACG 735
                                                                                                                                                                                                             ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG
                                                                GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTCAA
                                          GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                  601
                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                       ò
                                                                g
                                                                                                ò
                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                     g
                                                                                                                                               \stackrel{>}{\circ}
                                                                                                                                                                            Вþ
                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                            \dot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                           à
```

AC107097

240931 bp DNA linear HTG 13-MAY-2003
Rattus norvegicus clone CH230-175010, \*\*\* SEQUENCING IN PROGRESS RESULT 12 AC107097/c LOCUS DEFINITION

VERSION KEYWORDS SOURCE ORGANISM ACCESSION

ACI07097.5 GI:30580624
HTG: HTGS\_PRASE2; HTGS\_DRAFT; HTGS\_ENRICHED.
Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; AC107097

REFERENCE AUTHORS

Muzny, D. Marzie., Metzker, M. Lee., Abramzon, S., Adams, C., Alder, J., Albroy, D. Marzie., Metzker, M. Lee., Abramzon, S., Adams, C., Alder, J., Alsbrookes, S., Amin, A., Anguiano, D., Anyalebechi, V., Aoyadi, A., Ayodeli, M., Baca, B., Baden, H., Baldwin, D., Bandaranaike, D., Barber, M., Barnstead, M., Benahmed, F., Blankenburg, K., Blyth, P., Brown, M., Bryan, V., Burch, P., Burch, P., Burch, P., Burch, P., Burch, P., Carderon, E., Carderon, S., Carderon, C., Carderon, C., Carderon, C., Cookrell, K., Cak, C., Coole, M., Cree, A., D'Souza, L., Cleveland, C., Cockrell, R., Cox, C., Coyle, M., Cree, A., D'Souza, L., Davila, M. L., Davis, C., Davy-Carroll, L., De Anda, C., Dederich, D., Delgado, O., Denson, S., Deramo, C., Ding, Y., Dinh, H., Divya, K.,

Draper, H., Dugan-Rocha, S., Dunn, A., Durbin, K., Duval, B., Eaves, K., Boarlow, Bugger, C., Karaler, C., Karaler, C., Karaler, C., Renalder, G., Kraler, C., Karaler, C., Renalder, G., Kraler, C., Kraler, C., Renalder, G., Kraler, C., Kraler, C., Renalder, C., Renalder, C., Renalder, C., Renalder, C., Renalder, C., Renalder, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Hanilton, C., Marcha, C., Marcha, C., Karate, C., L., Labow, H., Hadm, S., King, C., L., Lober, A., Jackson, A., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R., Johnson, R.,

TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL

REFERENCE AUTHORS TITLE JOURNAL

COMMENT

----- Genome Center

8 8 8 8 6 8 8 රි සි 8 8 8 B 8 8 6 8 8 8 8 6 8 6 8 6 원 수 명 à \*\*NOTE: Estimated insert size may differ from sequence length

\*\*NOTE: This is a "working draft' sequence. It currently

\*\*NOTE: This is a"working draft' sequence. It currently

\*\*Consists of 1 contigs. Gaps between the contigs

\* are represented as runs of N. The order of the pieces

\* is believed to be correct as given, however the sizes

\* of the gaps between them are based on estimates that have

\* provided by the submittor:

\* This sequence will be replaced

\* by the finished sequence as soon as it is available and

\* the accession number will be preserved.

\* Location/Qualifiers

1 240931.

//cromalifiers

//cromalifiers

//db\_xrefe" (approximate the norvegicus")

//db\_xrefe" (approximate the norvegicus")

//clone="CRISO-175010" 237378 CCTCTTTGTCATCACACTCCCCTTCTGGGCAGTGGACGCCATGGCTGACTGGTACTTTGG 237319 237318 GAAATTTTTATGTAAGGCTGTGCATATCATCTACACCGTCAACCTTTACAGCAGTGTTCT 237259 237498 TITIATCATCTTCTTGACTGGCAIAGTGGCAATGGGTTGGTAATCCTGGTCATGGGTTA 237439 239 299 419 120 CITCATCATCATCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTA 179 GAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCT 359 Assembly program: Atlas 3.0;
Consensus quality: 216793 bases at least Q40
Consensus quality: 21224 bases at least Q30
Consensus quality: 221224 bases at least Q30
Estimated insert size: 228277; sum-of-contigs estimation
Quality coverage: 6x in Q20 bases; sum-of-contigs estimation CATCCTGGCCTTCATCAGCCTGGACCTCGCCATTGTCCACGCCACCACCAGTCA 60 GGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTA 240 CCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGG 180 CCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCT Query Match 65.8%; Score 1114; DB 2; Length 240931; Best Local Similarity 84.2%; Pred. No. 7.4e-234; Matches 1400; Conservative 0; Mismatches 140; Indels 122; Gaps end\_sequence:BH357332" complement(232579, .233220) /note="clone\_boundary clone\_end:T7 1. 1249
foots—wage end extension clone end Sp6"—complement (5161. 5587)
foots—clone boundary clone end :Sp6 site: EcoR1 239450. .240931 /note="wgs\_end\_extension clone\_end:T7" 'note="wgs\_end\_extension end sequence:BH357330" 235468. .237558 site:EcoRI end sequenc misc\_feature misc\_feature misc\_feature misc\_feature misc\_feature 300 360 FEATURES ORIGIN 셤 ò g ò 8 8 8 ઠ

23/258	CATCUIGGCCTTCATCAGCCTGGACCGCTACCTTGCCATTGTCACGCCACCACCACCACCACCACCACCACCACCACCACCA
420	AAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCT 479
480	CCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCCGAGGACATCAGTCAG
540	GGATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTCA 599
600	HH
660	CATCATCATCATABGCTGTCACACTCCAAGGCCACCAGAGCCCAAGGCCCTCAAGAC 719
720	GACAGICAICCICAICCIAGCIIICIIIIGCIGCIGCCAIAITAIGIGGGGAICAG 779 
780	CATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGT 839
840	ACAAGT
900	CCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCCAACTCCAT 959
960	GAGCAGAGGCTCCAGCTCAAGATCCTTTCCAAAGGAAAGGGGGGGG
1020 236613	ITTTCACTCCAGCTAACCCTTATGCAAAGACTTATA 10
1080	AIRTRIRIRIRIATATATATGATRARGRACTITITITITGITACACRITITICCA 1. 
1131	TTGT 
1191	TGTGTG
1240	TGTTTTTTTTTTTTTTTTATGAAGGGTCTAGGCAGGACCTGTGGCCAAG 1
1293 236313	TICTTAGTAGCIGTTTATCTGTGTGTAGACTGTAGAACTGTAGAGGAAGAAACTGAACA 1352 
1353 236253	gtaaattgaataaagctagccc 
1413	CCACCC

------Griric 236139 236086 /product = "fusin"
//product = "fusin"
//protein id="AAGS2953.1"
//protein id="AAGS2953.1"
//protein id="AAGS2953.1"
//protein id="AAGS2953.1"
//protein id="MEPISV8IYTSDNYSEEVGSGDYDSNXEPCFRDENVHFNRIFLP
//translation="MEPISV8IYTSDNYSEEVGSGDYDSNXEPCFRDENVHFNRIFLP
DNYFGRELCKANHIYTYUNNYSSYNILAFFRANDANA
DNYFGRELCKANHIYTYUNNYSSYNILAFFSCDRYAHINSORPRKALVA
GVWIPALLITIPDFIFADVSGGDISGGDDRYICDRLYPDSLWMVVFGFQHINWGLILP
GIVLIGCYCTIISKGARGKRKALKTTVTLILAFFACWLDYYVGTSIDSFILLGV
INCGCDPESYVHKWAITEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLK
LLSKGKRGGHSSVSTESESSSSFHSS" 1652 TCTGTAAAAGATGGCACTTAAAACCAAAGCCTGAAATGGTGGTGGTAGAAATGCTGGGGTTTT 1592 Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus. 1 (bases 1 to 3366)
Heesen,M., Berman,M.A., Benson,J.D., Gerard,C. and Dorf,M.E. Cloning of the mouse fusin gene, homologue to a human HIV-1 U. Immunol. 157 (12), 5455-5460 (1996) ROD 13-DEC-1996 TCTGTAGAAGATGGCACTTAAAACCAAAGCCTGAAATGGT-ATAGAAATGCTGG-----TITIGITITGITITITITICAGITITICAAGAGIAATIGACITICAGICCCTACAAAIGIA Harvard Medical School, 200 USA 236033 CAGICTIGIATIATGITGATAAAAAGICAAIGGIAAACII 235992 Mus musculus fusin (CXCR-4) gene, complete cds. U65580. 2 (bases 1 to 3366)
Plessen, W., Berman, M.A., Gerard, C. and Dorf, M.E. Direct Submission
Submitted (30-JUL-1996) Pathology, Harvard Medical Longwood Avenue, Boston, MA 02115, USA
Location/Qualifiers
1. 3366
// Organism= Wus musculus"
// Organism= Wus musculus"
// per genomic DNA"
// gtrain="C57BL/6J" CAGTOTTGTATACATTGTTAATAAAGTCAATGATAAACTT 1694 join(1, .21,2308, .3366) gene="CXCR-4" fnote="SDF-1 chemokine receptor" codon\_start=1 16. .>2307 /gene="CXCR-4" /note="alternate intron 1" 22. .2307 /db\_xref="taxon:10090" L. .3366 'gene="CXCR-4" Mus musculus (house mouse) Mus musculus 1. .15 /gene="CXCR-4" /note="alternate TIGGITGIGCIGIGIG-----/gene="CXCR-4" /number=1 8955194 1473 236159 1533 1593 236085 1653 236138 RESULT 13
MATG5580
LOCUS
DEFINITION
ACCESSION
VERSION
VERSION
CETYMEDS
SOURCE
ORGANISM intron JOURNAL MEDLINE PUBMED REFERENCE AUTHORS TITLE JOURNAL exon REFERENCE AUTHORS TITLE gene exon CDS FEATURES g à 8 S g 상 원

3088 ATGGACTCCTTCATCGGGGGTCATCAAGCAAGGATGTGACTTCGAGAGCATCGTG 3147 2548 CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTGCTTTGGG 2608 AAATTTTTGTGTAAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCGGGTTCTC 2908 TICCAGCATATAAIGGIGGGTCTCAICCIGCCCGGCAICGICATCCICTCCIGITACIGC 2968 ATCATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGGCGCAAGGCCTCAAGACG CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 3148 CACAAGTGGATCTCCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 2488 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 2668 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACACAGTCAA 2728 AGGCCAAGAAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCTC CICCIGACTATACCIGACTICATCTITGCCGACGICAGCCAGGGGGACATCAGTCAGGG TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTTCTTACTGC 661 ATCATCATCTCTAAGCTGTCACACTCCAAGGCCCACCAGAAGCGCAAGGCCCTCAAGACG ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCCATATTATGTGGGGATCAGC 781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 2308 AIATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAAGTTATGACTATGACTACCAAGAAG 2368 GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTC 361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA AGGCCAAGGAAACTGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC 541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 1 ATATACACTICIGATAACTACTCTGAAGAAGIGGGGTCTGGAGACTATGACTCCAACAAG Gaps Length 3366; ; 0 3; Indels 62.2%; Score 1054.2; DB 10; llarity 99.7%; Pred. No. 7.8e-221; Conservative 0; Mismatches 3; I /gene="CXCR-4" /number=1 2308. .3366 /gene="CXCR-4" /number=2 Similarity Best Local Sim Matches 1056; 841 301 601 721 181 421 481 901 61 241 Query Match Best Local S exon ORIGIN g . G 9 ઠે 셤 8 8 र्व क्षे  $\dot{\varsigma}$ 8 ò ઠે D D ö g à ò ò ద ò d ઠે g à d ò g  $\delta$ qq

2727

420

2367

ö

Tue May IS 13:54:45 2004

2427

120

2487

180

2547

300

240

2607

2667

360

2787

480

2847

540

2907

600

3027

720

2967

9

3087

840

900

960

intron

3208	CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 3267 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020	<b>₹</b> 0	230
		<i>∂</i> 8	241 CTCTTTGTCAT          290 CTCTTTGTCAT
1021 TCCAC       3328 TCCAC	TCCACGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAA 1059 	\ \tilde{c}  \text{8}	301
RNU54791 Rattus n U54791 U54791.1	RNU54791 Rattus norvegicus chemokine receptor LCR1 mRNA, complete cds. U54791 U54791.1 GI:1354504	& 8 & 4	361 ATCCTGGCCTT 404 ATCCTGGCCTT 421 AGGCCAAGGAA
attus attus ukary ammal	Rattus norvegicus (Norway rat) Rattus norvegicus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;	8 & 8	4 4 4 2 8 6 4 1 8 6
Rattus. 1 (bas Wong,M. Rat LCR recepto	52) W. and Duman, and cellular	& g	541
Mol. Ps 9723328 9118323 2 (bas	Mol. Psychiatry 1 (2), 133-140 (1996) 2733286 9118323 2 (bases 1 to 1362)	රු සි 	601 TTCCAGCATAT 
Wong, M. Direct Submitt	4. : Submission tted (11-APR-1996) Ma-Li Wong, Clincial Neuroendocrinology	상 음 	661 ATCATCATCTC
S231	Branch, National Institutes of Health, NIMH, Building 10 Room 3S231, 10 Center DR MSC 1284, Bethesda, MD 20892-1284, USA 11362	<i>₹</i> ₹	721 ACAGTCATCCT 
	/organism="Rattus norvegicus" /mol_type="mRNA" /strain="Spraque-Dawley" /db_xref="taxon:10116"	<i>ે</i> જે જે	781 ATCGACTCCT            764 ATCGATTCCT
	/clone="RLCR1" 441042rt=1 /codon start=1 /product="chemokine receptor LCR1"	& A	841 CACAAGTGGAT           824 CACAAGTGGAT
	/protein_id="AAB01981.1" /db_xref="G1:1354505" /db_xref="G1:1354505" /translation="MBIYTSDNYSEEVGSGDYDSNKEPCFRDENBNRNIFLPTIYPI /translation="MBIYTSDNYSEEVGSGDYDSNKEPCFRDENBNRNIFLPTIYPI IFLIGIVGNGLVILVMGYQKKLRSMTDKYRLHLSVADLLFVITLPFSDAMADWYFGKF LCXAVHITTYTNLYSSYJLLAFESDRYLAHTANTNGSARKALLAFADDIFFADUSQS DGRYICDRLYPDSLWMVVFQFQHINVGLILFGIVILSCYCIIISKLSHSKHQKRKAL KTVYILLIAFFACWLPYYVGGSIDSFILLEVIKQGGBFSSVVHKWISITEALAFFHCC LNPILYAFLGAKFKTSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESSESSFHSS"	\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tin}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tex{\tex	901 CTCTATGCCTT 884 CTCTACGCCTT 961 AGCAGAGGCTC 944 AGCAGAGGCTC
Match local Simi ss 1169;	Match Local Similarity 84.8%; Pred. No. 3.6e-197; es 1169; Conservative 0; Mismatches 116; Indels 93; Gaps 6;	& €	1021
1 ATA     50 ATA	ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG 60 	<del>~</del>	1081
61 GAA      10 GAA	GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120 	중 옵 	1132
		ò a ò	1192 TTATGITCCTC 1184 TCTAGITITIG 1240TGTTT
181 CAGA	Cagaagaagctaaggagcatgacggacaagtaccggctgcacctgtcagtggctgacctc 240	-	-

```
1020
                                                                                                                                                                                                                                                                                                                                                                                             1123
                                                                                                                                                                                                                                                                                                                                           1003
                                                                                                                                                                                                                                                                                                                                                        1131
                                                                                                                                                                                                                                                                                                                                                                                                          1191
                                                                                                                                                                                                                                                                                                                                                                                                                       1183
                                                                                                                                                                                                                                                                                                                                                                                                                                    1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1293
                                                                                                                                                                                                 720
                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                  943
                                                      403
                                                                   420
                                                                                                                                                                                   643
                                                                                                                                                                                                             703
                                                                                                                                                                                                                                      763
                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                        883
                                                                                                                                                                                                                                                                                                      960
                               343
                                           360
                                                                                 463
                                                                                             480
                                                                                                          491
                                                                                                                       540
                                                                                                                                    526
                                                                                                                                               600
                                                                                                                                                            583
                                                                                                                                                                         999
                                                                                                                                                                                                                                                               823
      289
                  300
                                                                                                                                               CTAAGCTGTCACACTCCAAGGCCCACCAGAAGCGCAAGGCCTCAAGACG
                                                                                                                                                                                                                                                   TCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                          CTGACCAGTCTTGTACAGTTTTTTTTTTTTAATTGACTGTTGGGAGT
                                                                    TCARCCTAGCTTTCTTTGCCTGCTGCCACAATTATGTGGGGATCAGC
                                                                                                                                                                                                                                                                            TCTCCATCACAGAGGCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                               CCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC
                                                                                                                                                                                                                                                                                                                                                                                 GIGTGIGTGTGTGTGTGTGTGTGTGTTTAATTTATATAATATTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCCAAGT
TCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                           CT-----AGTTTTGTCAGGTTTGACTTAATTTATATAAAATT----
                                                                                              AACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
```

```
1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1346 gcradaaardarcccaacrerrardcara 1376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Search completed: May 17, 2004, 12:10:55 Job time : 6860.38 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                              1141
                                                                                                                                                                                                          841
 332
                                            592
                                                                                                                                                             781
                                                                                                                                                                                   772
                                                                                                                                                                                                                                 832
                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                    961
                       601
                                                                                                                721
                 \delta
                                          엄청
                                                                                    g
                                                                                                         8 8
                                                                                                                                                       8 B 8
                                                                                                                                                                                                                          음 중 음
                                                                                                                                                                                                                                                                                              ठे है ठे
                                                                                                                                                                                                                                                                                                                                                                8 è
                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   쉱
                                                                                                     PAT 16-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                     5
1244 TTTTTCTGTTGTTTGTCTGTTTCACGTGAATGAGTGTCTAGGCAGGACCTGTGGCCAAGT 1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 TTCATCATCTTCTTGACTGGCATAGTCGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180
127 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGAAGAAACTGAGAAGCATGACGACAAGTACAGGCTGCTGTCAGTGGCCGACCTC 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 AAATITITGGGAAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGCCAAGGAAGCTGTTGGCTGAAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTCAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                99
                                                                                                                                                            Homo sapiens (human)
Homo sapiens
Eukarycia, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae, Homo.
                                   Demaison, C., Isalan, M., Moore, M., Choo, Y., Girdlestone, J.R. and Ullman, C.
Nucleic acid binding polypeptides
Nucleic acid binding polypeptides
Patent: WO 02057308-A 11 25-JUL-2002;
SANGAMO BIOSCIENCES INC (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       crecreacharreceachtrarchridecaaee------reachdadea
                                                                                                                                                                                                                                                                                                                                                                                                                              7 ATATACACTICAGATAACTACACCGAGGAGAATGGGCTCAGGGGACTATGACTCCATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAACCCTGCTTCCGGGATGAAAAGGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 ATATACACTICTGATAACTACTCTGAAGAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                       TCTTAGTAGCTGTTTATCTGTGTGTAGACTGTAGAACTGTAGAGAAGAACTGAAC
                                                                                                                                                                                                                                                                                                                                                                                     41;
                                                                                                                                                                                                                                                                                                                                                                Length 1582;
                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                             Query Match
55.1%; Score 933.4; DB 6;
Best Local Similarity 81.8%; Pred. No. 2.6e-194;
Matches 1154; Conservative 0; Mismatches 216;
                                                                                                     DNA

    1582
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"

                                                                                                   AX481810 1 from Patent WO02057308. AX481810 AX481810.1 GI:22316633
                       1294
                                            1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                            RESULT 15
AA481810
LOCUS
DEFINITION
ACCESSION
VERSION
VERSION
CETWORDS
SOUNCE
ORGANISM
                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                           TITLE
JOURNAL
                                                                                                                                                                                                                                                                              PEATURES
                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 6 8 6
8
                ò
                                      台
                                                                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
상
임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ģ g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
```

1080 1140 1260 1020 1063 1200 1233 1293 101 1177 960 720 780 840 900 951 651 771 831 891 661 ATCATCATCTTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCCAAAGGCCCTCAAGACG 652 ATTATCATCTCCAAGCTGTCACACTCCAAGGCCACCAGAAGCGCAAGGCCCTCAAGACC ATCGACTCCTTCATCCTCCTGGAATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTG CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC CTCTATGCCTTCCTCGGGGCCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 892 crcrarecrrrcerresasceaarrraaaaccrereceascacacacacrecrerere 952 AGCAGAGGGCCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTT 1012 TCCACTGAGTCTGAGTCTTCAAGTTTTCACTCCAGCTAA------CACAGATGTAAAA 1234 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG 712 Acadrearecrearecreserrrerresecrerreserracraeracarreser ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1081 AATATATATATATATATATAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG 1064 GACTTTTTTTTATACGATAAATAACTTTTTTTTAAGTTACACTTTTTCAGATATAAAAG 1124 Acticaccaararidracacritirarigcricircarritrici-----cricicitric 1178 TITAGITITIGIGAAGITITAATIGACTTATTATA----TAAATITITITITITICATAT 1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG ACAGICAICCICAICCIAGCIIICTIIGCCIGCIGGCIGCCAIAIIAIGIGGGGAICAGC ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC 1321 GACTGTAGAACTGTAGAAGAAGAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCCTGTTACTGC

```
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                             nucleic search, using sw model
                                                                                             OM nucleic
```

May 17, 2004, 03:46:58 ; Search time 726.44 Seconds (without alignments) 9906.453 Million cell updates/sec Run on:

US-09-367-052-7 1694 1 atatacacttctgataacta......taaaagtcaatgataaactt 1694 Title: Perfect score:

Sequence:

IDENTITY NUC Gapop 10.0 , Gapext 1.0 Scoring table:

6747726 Total number of hits satisfying chosen parameters:

3373863 seqs, 2124099041 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

genescari 980s: \*
genescari 980s: \*
genescari 900s: \*
genescari 2001s: \*
genescari 201as: \*
genescari 201as: \*
genescari 201as: \*
genescari 201as: \* geneseqn2003bs:\* geneseqn2003cs:\* geneseqn2004s:\* N\_Geneseq\_29Jan04:\* 1: qeneseqn19808:\* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

uo	Mouse CXC	Nucleic a	CXCR4 rec	Human CXC	Human CXC	CXCR4 cod	Human neu	Nucleotid	DNA encod	Hypoxia-r	Angiogene	Human cDN	Nucleotid	Human CXC	Human CXC	Human gen	Human cDN	Human mon	Chemokine	cDNA enco	Human ade	Human CCR	CXCR4 gen
Description	Aa227611	Aav46370	Abs64793	Aaz27610	Aaa61656	Aaz40014	Aad12801	Aai65467	Abs53992		Abx08779		Abz6886	Abz42642	Adc98645	Abz35348	Adb47320	Aaq80521	Aaq99007	Aax15882	Aaa34774	Aa£20896	Aah99951
ΩI	AAZ27611	AAV46370	ABS64793	AAZ27610	AAA61656	AAZ40014	AAD12801	AAI65467	ABS53992	ABV78039	ABX08779	ABX74454	ABZ68886	ABZ42642	ADC98645	ABZ35348	ADB47320	AAQ80521	AAQ99007	AAX15882	AAA34774	AAF20896	AAH99951
DB	C)	N	9	0	m	m	4	4	9	9	۲	^	7	7	σ	ø	σ	0	Ŋ	N	ო	ო	v
% Query Match Length	1758	1877	1582	1588	1664	1664	1679	1679	1679	1679	1679	1679	1679	1679	1679	1711	1711	1737	1737	1944	5161	5161	5161
% Query Match	100.0	6.66	55,1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1
Score	1694	1692.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4
Result No.	Н	67	e	4	ហ	φ	7	80	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23

This sequence encodes the mouse CXCR4 protein. The invention relates to remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockout mouse, it becomes possible to prepare remedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a

Abz96590 Human CCR Aca64841 Human CXC Add67548 Human Ly1	3803 Human 5645 Gene # 5765 Human	750 506 421	05 Primar 30 Human	Aca56637 Human sig Abz35563 Human gen	726 Human 255 Human	Aaq66179 Seven tra Aaz38553 Human CXC Abq74938 Human CXC	9952 2707 4750
ABZ96590 ACA64841 ADD67548	80 64 76		ADB53005 ABZ35630	ACA56637 ABZ35563		AAQ66179 AAZ38553 ABO74938	100 m
110	1006	900	6.0	r 9 c	VMV	01 M V	7 7 6
LO LO ST		1679	10 01	N N F			വരവ
10 10 10	50.00 0.00 0.00	10 <del>4</del> 6	m 0	000		4.04 4.7.6 4.0.7	
933.4		337	905.4	. 63.	834 834 444	832.4	0.40
2, 2, 2, 4, 7, 7,	101010	3330		is vo t	7 80 60 7 60 60 7 60 60	0 4 4 0 1 7	4 4 4 1 W 4 73

## ALIGNMENTS

RESULT AAZ276	11
8	AAZ27611 standard; DNA; 1758 BP.
Y S	AAZ27611;
žĖ:	16-DEC-1999 (first entry)
<b>岩</b>	Mouse CXCR4 coding sequence.
<b>188</b> 2	CXCR4; mouse; neovascularisation; inhibitor; solid cancer; theragtissue repairing agent; vascularisation; ss.
8	Mus sp.
X Z	WO9948528-A1.
<b>3</b> 2	30-SEP-1999,
X E	23-MAR-1999; 99WO-JP001448.
X K	24-MAR-1998; 98JP-00095448.
XE	
£ ¤	(KISH/) KISHIMOIO I.
PI	Kishimoto I, Nagasawa I, Tachibana K;
ž K	WPI; 1999-591042/50.
DR	P-PSDB; AAY39994.
ž E	CXCR4-potentiating agents and methods useful for inhibiting
PT	, and treating solid cancers.
1 2 3 3 3 3 3	Disclosure; Page 50-51; 63pp; Japanese.
ខុម	This sequence encodes the mouse CXCR4 protein. The invention rela
ខ្ល	lies
86	remedies for diseases pathologically caused by neovascularisation
ខ្លួ	of potentiating CXCR4. Based on a finding that vascula
g	d in a CXCR4 knockout mouse, it becomes possible
g	biting vas
S S	tance capable
ပ္ပ	er, remedies for diseases pathologically caused r
ပ္ပ	and tissue repairing agents containing as the active ingrequent

by;

N

88

8 8

8 8

```
1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1680
                                                       1080
                                                                                                           1140
                                                                                                                                                               1200
                                                                                                                                                                                         1221
                                                                                                                                                                                                                     1260
                                                                                                                                                                                                                                                                         1320
                                                                                                                                                                                                                                                                                                   1341
                                                                                                                                                                                                                                                                                                                              1380
                                                                                                                                                                                                                                                                                                                                                                                                              1461
                                                                                                                                                                                                                                                                                                                                                                                                                                        1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1620
                           1041
                                                                               1101
                                                                                                                                                                                                                                             1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mouse; CXC chemokine receptor; pre-B cell line DW34;
CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1; HIV infection;
screening; inhibitor; AIDS; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATATTCC
                                                                                                                                                                                                                                   iciasitititisisassitisacitaaritaiaiaaaaatatsitititititisitisatsi
                                                                                                                                                                                                                                                                                                   1282 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG
                                                                                                                                                                                                                                                                                                                                              GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA
                                                                                                                                                                                                                                                                                                                                                                                    GCTAGCCGTGATCCTCAGCTGTTGCTGCATAATCTCTTCATTCCGAGGAGCACCCCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                    GCTAGCCGTGATCCTCAGCTGTTGCTGCATAATCTCTTCATTCCGAGGAGCACCCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAAGGGGGTGGACACTCTTCCGTC
                                                                 1042 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT
                                                                                                                                                                                                                     GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG
                                                                                                                                                                                                                                                                                                                              GACTGTAGAACTGTAGAAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                          ccaccccaccccarrentaarrentagrrangrangrangrangrang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTITTTTTTTGTTGTTGTTGTTTTTTTTTTTCTGTAAAAGATGGCACTTAAAACCAAA
  AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC
                                                     TCCACGGAGTCACAATCTCCAGTTTTCACTCCAGCTAACGCTTATGCAAAGACTTATAT
                                                                                                           AATATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG
                                                                                                                                                               ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       encoding a murine CXC chemokine receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          to mRNA; 1877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
120. .1199
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAATGATAAACTT 1715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCAATGATAAACTT 1694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV46370 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1642
                                                                                                                                      1102
                                                                                                                                                                1141
                                                                                                                                                                                          1162
                                                                                                                                                                                                                      1201
                                                                                                                                                                                                                                                1222
                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                              1321
                                                                                                                                                                                                                                                                                                                                                        1342
                                                                                                                                                                                                                                                                                                                                                                                    1381
                                                                                                                                                                                                                                                                                                                                                                                                              1402
                                                                                                                                                                                                                                                                                                                                                                                                                                          1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV46370;
                            982
                                                        1021
                                                                                                            1081
     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mouse;
CXC che
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                     ద
                                                       à
                                                                           셤
                                                                                                    8 8 8 8
                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                             120
                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                 261
                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                     321
                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                           381
                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATG 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              981
                                                                                                                                                                                                        141
    establish
                                                                                                                         9
                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                  322 AAATTITGIGIAAGGCIGICCATAICAICTACACIGICACCICTACAGCGGGGGTICIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCATCATCATCATAGCGTGTCACACTCCAAGGGCCACCAGAAGCGCCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCATCTCTAAGCTGTCACACTCCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGGCCCAGCATGCACTCAACTCCATG
                                                                                                                      1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                            GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                142 TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTCATCTTCTTGTTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                             CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                              CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGCCAAGGAAACTGCTGGCTGAAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATGACAGGTACATCTGTGACCGCCTTTACCCCGGATAGCCTGTGGATGGTGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCCTGCCATATTATGTGGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAGICATCCICATCCIAGCITICITIGCCIGCIGGCIGCCATAITAIGIGGGGAICAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                              ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                  AAATTTTTGTGTAAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                   82 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                  TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                       181 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                       CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                               Gaps
substance capable of potentiating CXCR4. It is also possible to methods for treatment with the use of these remedies
                                                                                              ó
                                                                  2; Length 1758;
                                        Sequence 1758 BP; 447 A; 414 C; 369 G; 528 T; 0 U; 0 Other;
                                                                                              Indela
                                                                                            ô
                                                                    DB
                                                                  100.0%; Score 1694;
100.0%; Pred. No. 0;
ive 0; Mismatches
                                                                 Ouery Match
Best Local Similarity 100.
Matches 1694; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              199
                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              922
                                                                                                                                                  22
                                                                                                                                                                             61
                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                 202
                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                       262
                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
```

90 00 00

*장* 염

B & B & B &

8 8 8

8 8 8

8 8 8

d

8 8

8 8 8

```
1081
                                                                                                                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1761
                                                                                                                                                                    841
                                                                                                                                                                                                        901
                                                                                                                                                                                                                                            196
                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1621
                                                                                                                                                                                      981
                  601
                                                                                           721
                                                                                                                               781
                                                                                                                                                 921
                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                ⋧
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                           8 8
                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                  g
                                                      ઠે
                                                                     g
                                                                                         ₽
                                                                                                           g
                                                                                                                              δ
                                                                                                                                             g
                                                                                                                                                                  ठ
                                                                                                                                                                                 ద
                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                                                                                                                                       260
                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                            320
                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CICTITGECATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTTGGG 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAATTITIGIGIAAAGGCIGICCATAICAICIAAACTGICAACCICTACAGCAGCGGIICIC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   620
                                                                                                                                               Mouse CXC chemokine receptor binding to PBSF/SDF-1 pre-B cell stimulatory factor - is useful for screening of potential HIV infection and AIDS
                                                                                                                                                                                                        binds
L. The
                                                                                                                                                                                                      The present sequence encodes a murine CXC chemokine receptor which bind to the mouse CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1. Th nucleic acid is isolated from mouse pre-B cell line DW14. The receptor and cells expressing it can be used in the study and mapping of the mechanism of HIV infection and in screening of potential inhibitors of HIV infection and the development of AIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                   TTCATCATCATCTTCTTGACTGGCATGGTCGGCAATGGATTGGTGATCCTGGTCATGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGAAGAAGCTAAGGAGATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGCCAAGGAAACTGCTGGCTGAAAAGCAGTCTATGTGGGCGCTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                    GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                          TICATCATCITCITGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                ATATACACTTCTGATAACTACTCTGAAGAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                           Length 1877;
                                                                                                                                                                                                                                                                                                             ö
                                                                                           ż
                                                                                           Yoshida
                                                                                                                                                                                                                                                                       Sequence 1877 BP; 469 A; 451 C; 406 G; 551 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                            1; Indels
                                                                                           Ä
                                                                                                                                                                                                                                                                                         Query Match
99.9%; Score 1692.4; DB 2;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 1693; Conservative 0; Mismatches 1;
                                                                                            Iizasa
                                                                                           ĸ
                                                                                           Tachibana
                                                                                                                                                                                      Claim 3; Page 39-42; 76pp; Japanese.
                                                      97WO-JP000299
                                                                                          Nagasawa T,
Yoshie O;
                                                                        (SHIO ) SHIONOGI & CO LTD
                                                                                                                     WPI; 1998-447232/38.
P-PSDB; AAW64778.
                                                                                          Kishimoto T,
Nakajima T,
                                                      07-FEB-1997;
 WO9835035-A1
                                     07-FEB-1997;
                  13-AUG-1998
                                                                                                                                                                    inhibitors.
                                                                                                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                            261
                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8 8 8 8 8
ò
                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                   જે
                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                        \overset{\sim}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95
PP 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8
```

1040 1020 1160 1080 1220 1200 1340 1400 1320 1460 1380 1520 1560 1680 1820 1100 780 920 840 980 006 960 740 800 720 860 **AGAGTAGATTGACTTCAGTCCCTACAAATGTACAGTCTTGTATTACATTAAAAG** GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 1401 GAATGAGGGTCTAGGGAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAG AGAGTAGATTGACTTCAGTCCCTACAAATGTACAGTCTTGTATACATTGTTAATAAAG 801 ATCATCATCATAGCTGTCACACTCCAAGGCCCACCACAAAGCGCAAGGCCCTCAAGACG ATCGACTCCTTCATCCTTTTGGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGGATGTGTG AATATATATATATATATAGATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG 1221 AATATATATATATATATAAAGAACTTTTTATGTTACACATTTTCCAGATATAAGAG 1281 ACTOACCAGICTIGIACAGITTITTITTITTITAATIGACTGTIGGGAGTTIAIGITCC CCACCCCCACCCCACCCCATTCTTAAATTGTTTTGGTTATGCTGTGTGATGGTTTTGTTTTG GTTTTTTTTTGTTGTTGTTGTTTTTTTTTTTTTTGTAAAGATGGCACTTAAAACCAAA ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1161 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATATAT GCTAGCCGTGATCCTCAGCTGTTGCTGCATAATCTCTTCATTCCGAGGAGCACCCCACCC GITTITITITITGITGITGITGITTITITITITITCTGIAAAGATGGCACTTAAAACCAAA GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCCTGTTACTGC 661 ATCATCATCTCTAAGCTGTCACACTCCAAGGCCCACCAGAAGCGCAAAGGCCCTCAAGACG ACAGECATCCECATCCEAGCETECTETGCCEGCTGCCTGCCATATTATGEGGGATCAGC CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC 

New polypeptide capable of binding nucleic acids for treating or preventing a disease caused by a virus or a disease associated with an immune response, particularly autoimmune diseases e.g. inflammation or rheumatoid arthritis. Receptor; virus infection; immune response; autoimmune disease; TNFR1 receptor; inflammation; autoimmune encephalomyelitis; rheumatoid arthritis; myocarditis; CXCR4 receptor; ds. Isalan M, Reynolds L, Ullman C, C, Choo Y; Disclosure; Page 12-13; 105pp; English BP. (SANG-) SANGAMO BIOSCIENCES INC. 22-JAN-2001; 2001GB-00001576. 07-FEB-2001; 2001GB-00003032. ABS64793 standard; DNA; 1582 22-JAN-2002; 2002WO-GB000246 CXCR4 receptor DNA sequence entry) TCAATGATAAACTT TCAATGATAAACTT (first WPI; 2002-590720/63. WO200257308-A2 Unidentified Moore M, Is Demaison C, 15-NOV-2002 25-JUL-2002 1821 1681 ABS64793; ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS6479
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS6479
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS64793
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6479
ABS6 g ò

Girdlestone J;

The present invention relates to a new polypeptide capable of binding to a nucleic acid comprising a receptor nucleotide sequence which can function as a receptor for virus infection or is involved in an immune response. The molecules of the invention are useful in the treatment or prevention of a disease caused by a virus or of a disease associated with an immune response. Particularly an autoimmune disease. The zinc finger polypeptide or a nucleic acid encoding such a polypeptide can be used to modulate transcription of a receptor nucleotide sequence. The nucleic acid supply peptide capable of binding to a nucleic acid sequence comprising a receptor nucleotide sequence of binding to a nucleic acid sequence comprising a receptor nucleotide sequence, where the receptor is capable of functioning as a receptor for infection by the virus or is involved in an immune response, or a nucleic acid encoding such a polypeptide, can be used in the preparation of a medicament for use in the treatment or prevent various diseases caused by a virus or of a disease associated with or caused by malfunction of the receptor as the TNFR1 receptor, such as autoimmune diseases including inflammation, autoimmune accomed assesses including inflammation, autoimmune accomed sequence represents a correct represents a correct receptor represents and carterities or myocardities. The present nucleic acid sequence represents and correct or an encoded sequence.

Sequence 1582 BP; 386 A; 376 C; 333 G; 487 T; 0 U; 0 Other;

1081 ద ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG Similarity 81.8%; Pred. No. 4.2e-207; Similarity 81.8%; Pred. No. 4.2e-207; Conservative 0; Mismatches 216; Indels 41;

AATATATATATATATATGATAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG 1140 1020 101 180 240 246 300 306 360 366 420 426 480 486 540 900 099 651 720 711 780 771 840 831 900 891 960 951 120 126 186 531 591 ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAG ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC AGCAGAGGGTCCACCTCAAAGAAAAGAAAAGGAAAAGAAATCATCTGTT 247 CTCTTGTCATCACGCTTCCCCTTCTGGGCAGTTGATGCCGTGGCAACTGGTACTTTGGG AAATITITIGIGIAAGGCIGICCATAICATCIACACTIGICAACCICTACAGCAGCGTICTC AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACG ACAGTCATCCTCATCCTAGCTTTCCTTTGCCTGCCTGCCATATTATGTGGGGATCAGC CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 67 GAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC TCCATCATCTTCTTAACTGGCATTGTGGCAATGGATTGGTCATCCTGGTCATGGGTAAC 307 AACTICCIAIGCAAGGCAGTCCAIGICAICIACAGAGCAGTGICCIC TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCCTGCTGC GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 652 127 181 187 361 427 487 541 601 592 712 781 772 841 832 901 892 961 952 121 241 301 367 421 481 532 661 721 8 6 8 6 8 6 8 6 8 õ 셤 8 8 8 B õ ò g 8 8 ò g à g Š g õ 원 ઠ 셤  $\dot{\delta}$ ઠે g

Query Match Best Local Simi Matches 1154;

1177 1233 1320 1200 1260 1234 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG 1293 1064 GACITTTTTTTATACGATAAATAACTTTTTTTAAGTTACACATTTTCAGATATAAAAG 1123 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC 1178 İrrikGiririrididəAdiriraAriqaCirarirara----raaaririririririricarar 1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGT |||||| |346 GCTAGAAATGATCCCCAGCTGTTTATGCATA 1376 1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411 ò g 8 a 셤 ò a ò à g

RESULT 4 AAZ27610

AAZ27610 standard; DNA; 1588 BP. AAZ27610;

Human CXCR4 coding sequence

16-DEC-1999 (first entry)

CXCR4; human; neovascularisation; inhibitor; solid cancer; therapy; tissue repairing agent; vascularisation; ss.

Homo sapiens

W09948528-A1

30-SEP-1999

99WO-JP001448 23-MAR-1999; 98JP-00095448 24-MAR-1998;

(CHUS ) CHUGAI SEIYAKU KK. (KISH/) KISHIMOTO T.

Tachibana K; Kishimoto T, Nagasawa T,

WPI; 1999-591042/50. P-PSDB; AAY39993.

CXCR4-potentiating agents and methods useful for inhibiting neovascularization, and treating solid cancers.

Disclosure; Page 48-49; 63pp; Japanese.

This sequence encodes the human CXCR4 protein. The invention relates to remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockout mouse, it becomes possible to prepare remedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. It is also possible to establish methods for treatment with the use of these remedies 

Sequence 1588 BP; 396 A; 375 C; 334 G; 483 T; 0 U; 0 Other;

Oue. Best	ery Match st Local Similarity 81.8%; Pred. No. 4.28-207; tches 1154; Conservative 0; Mismatches 216; Indels 41; Gaps 5;	
à	1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG 60	
QQ	ATATACACITCAGATAACITCCAGGAATGGGCTCAGGGGACTATGACTCCATGAA	
à	1 GAAC	
ор	ocongrificargaagaaargcraaffrcaaraaafcrrocraccaccarcra	
ò	121 TICATCATCTTTGTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180	
qq	CATCATCTTCTTAACTGGCATTGTGGCAATGGATTGGTCATCCTGGTCATGGGTTA	
ò	181 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 240	
qq	-E	
ò	241 CICITIGICALCACCCCTICIGGGCAGITGALGCCAIGGCTGACTGGTACTITIGG 300	
QQ	crincicalcaccinccinciascacinalicaricandecaracidena	
ò	ITTGTGTAAGGCTGTCCATATCATCTACACGCAACCTCTACAGCGTTCTC 36	
ΩD	rctargcaaggagrccargrcarctaagaggaggaggaggaggaggaggaggaggagrccr	
ò	361 AICCIGGCCTICARCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420	
qq	TCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAG 43	
à	CTATGTGGGCGTCTGGATCCCAGCCCTC 48	
QQ	CCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCC	
ò	9999	
qq	screactariccesactreaterreceaace	
ò	541 GAIGACAGCIACATCIGIGACCGCCITITACCCCGAIAGCCIGIGGAIGGIGGIGITICAA 600	
qq	'ACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGTGG	
ò	CTGC 66	
අ <u>ධ</u>	Agcacarcardgrindecciralicitectideraridatearcherecrarid	
ò	661 ATCATCATCTAGAGCTGTCACACTCCAAGGGCGACCAGAAGGGCCAAGGCCCTCAAGACG 720	
q	daaddcccrcaada	
ò	ACAGICATCCTCATCCTAGCTTTCTTTGCCTGCTGCTGCCCATATTATGTGGGGATCAGC 78	
Ор	rrederecerraciacarredearea	
ò	781 ATCGACTCCTTCATCCTTTTGGAGTCATCAAGGAAGGATGTGACTTCGAGAGCATTGTG 840	
ପ୍ର	ricciicaicciccidaaaicaicaadaaadgaagagaicaagairigagaaca	
ò	841 CACAAGTGCATCTCCATCACAGAGGCCCTCGCCTTCTCCACTGTTGCCTGAACCCCATC 900	
οg	saatıriccarcaaaacccraacrırcriccacratoratoraaacccar	
ò	CICIAIGCTICCICGAGGCCAAGIICAAAAGCICIGCCCAAGAIGCACCTCAACICCAIG 96	
qq	ctatgctttccttggagccaaatttaaaacctctgcccagcacgcac	
λ	961 AGGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAAGGAAGACTGAACTCTTCCGTC 1020	
qq	sadgerccadcercadaarccrcccaaagaaaacdaggadarrcar	

1140 1200 1320 1072 1186 1260 1242 1302 GACTGTAGAACTGTAGAAGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGGGTGTAGTTAATCACGTAAA 1354 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT rccacreacrereacrerreacrirreacreceacraa-----cacacacraaa 1073 GACTTTTTTTTTATACGATAAATAACTTTTTTTAAGTTACACATTTTCAGATATAAAG ACTGACCAATATTGTACAGTTTTTTATTGCTTGGTTGGATTTTTGT-----CTTGTGTTTTC GAATGAGCCTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 1243 TGATGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGGGTAG Antisense oligonucleotide, useful as inhibitor in preventive or remedy 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC NO: 2 NO:3 NO:1 ij ü a CXCR4; human CXC chemokine receptor 4; HIV infection inhibition; expression inhibition; antisense therapy; ss. /\*tag= a //ktag= a //bound\_moiety= "Antisense oligonucleotide SEQ //AAA6152) " /\*tag= b /\*tag= b //AAA61553) " //AAA61653) "Antisense oligonucleotide SEQ /\*tag= b /bound moiety= "Antisense oligonucleotide (AAA61654)" GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411 Human CXC chemokine receptor (CXCR4) cDNA Location/Qualifiers ВР Ë AAA61656 standard; DNA; 1664 99WO-JP006534 98JP-00332760 Shimada (HISM ) HISAMITSU PHARM CO WPI; 2000-400081/34 Goto T, WO200031271-A1 sapiens 24-NOV-1999; 24-NOV-1998; 23-OCT-2000 Key primer bind primer\_bind primer bind 1187 Iijima O, 1021 1081 1133 1201 1321 1381 1021 1261 1355 AAA61656 Ношо RESULT 5
AAA61656
AAA61656
XX
AAA6
XX
AAA6
XX
AAA6
DDT 23-C
DDT 23-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3-C
DDT C3 a 8 원 장 q 8 G  $\delta$ g 8 6 g ò

```
120
                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                     151
                                                                                                                                                                                                                                                                                                                                                                              211
                                                                                                                                                                                                                                                                                                                                                                                                                                      271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGACGACCAACAGTCAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                   The invention relates to human CXC chemokine receptor 4 (CXCR4) -specific antisense oligonucleotides (AAA61652-A61654). The oligonucleotides hybridise with the CXCR4 gene and/or CXCR4 RNA, thereby preventing its expression. As CXCR4 plays a role in HIV infection, the antisense oligonucleotides act as inhibitors of this process. Compositions containing the antisense oligonucleotides are useful as prophylactic or therapeutic agents for HIV infection. Such compositions are highly efficacious for inhibiting infection with HIV. The present sequence represents a human CXCR4 cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----TCAGTGAGGCA 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                           09
                                                                                                                                                                                                                                                                                                                     92 ATATACACTICAGATAACTACACCGAGGAAATGGGCTCAGGGGGACTATGACTCCATGAAG
                                                                                                                                                                                                                                                                                                                                                  GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                     TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                      212 rccarcarcrraacreecarrereecaareearreercarcreercarearra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cadaagaaacrigagaaagcargacgacaagacagcragcragcaccrgrcagragaccrc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cremmencarcacerrecenteresecasmenteceresecasecreseracintese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     452 ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCGACGCCACGCCACAGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCATCATCTCTAAGCTGTCACACTCCAAGGCCCACCAGAAGCGCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACTACATTGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u> AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41,
                                                                                                                                                                                                                                 Length 1664;
                                                                                                                                                                                                     Sequence 1664 BP; 414 A; 398 C; 359 G; 493 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                Score 933.4; DB 3;
Pred. No. 4.3e-207;
0; Mismatches 216;
 efficacy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         crecreaciairceceacireárcirreceace-
HIV infection with high therapeutic
                           Example 1; Page 17-18; 21pp; Japanese
                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                              Query Match
Best Local Similarity 81.8%;
Matches 1154; Conservative (
                                                                                                                                                                                                                                                                                                                                                  19
                                                                                                                                                                                                                                                                                                                                                                                152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           , 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   737
                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
£ X & X D D D D D D D X & X
                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                         ď
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          성 않
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8
```

us-09-367-052-7.rng

~

ŝ

151 120 211 180 271 240

9

300

391

331

360

451

420

511

480 571 540 919 600 919 099 736 720 196 780 916

856

```
This sequence represents a CXCR4 coding sequence. The invention relates to antisense oligonuclectides that hybridise specifically with chromosomal DNA and/or RNA encoding a CXCR4 protein, and inhibit the expression of the CXCR4 protein. The antisense oligonuclectides can be used in an anti-HIV agent. The oligonuclectides and the anti-HIV agent are highly effective as a preventive and treating agent for HIV infection
                                                                                                                                                                                                                                                                                                                         TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                         CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTATCATCTCCCAAGCTGTCACACTCCAAGGCCCACCAGAAGCGCAAGGCCCTCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCGACTCCTTCATCCTTTTGGGGGTCATCAAGCATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                         1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                              ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG
                                                                                                                                                                                                                                                                                  GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                             CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                           CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                            CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACTTCCTATGCAAGGCAGTCCATGTCATCTACACGTCAACCTCTACAGCAGTGTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITCAGCACATCATGGTTGGCCTTATCCTGCTGGTATTGTCATCTGTCCTGCTATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCATCATCTTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                             GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                            TTCATCATCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAA
                                                                                                                                                                                    41;
                                                                                                                                                          Query Match
55.1%; Score 933.4; DB 3; Length 1664;
Best Local Similarity 81.8%; Pred. No. 4.3e-207;
Matches 1154; Conservative 0; Mismatches 216; Indels 41;
                                                                                                                                    Sequence 1664 BP; 414 A; 398 C; 359 G; 493 T; 0 U; 0 Other;
                          Disclosure; Page 5-6; 6pp; Japanese,
                                                                                                                                                                                                                                                                                                                                                                                                                                   332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     677
                                                                                                                                                                                                                                    92
                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                    152
                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                     212
                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                   272
                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   857
  g
                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                           \dot{\delta}
                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                              입
                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                            1036
                                                                                                                                     1020
                                                                                                                                                                                                                                                                                                                                     1260
                                                                                                                                                            1096
                                                                                     960
                                                             976
              916
CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                       AGCAGAGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTTT
                                                                                                                                                                                   GACTGTAGAA------AAGGGAACTGAACATTCCAGAGCGTGTAGTTAATCACGTAAA
                                                   CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC
                                                                                                   1149 GACTITITITITATACGATAAATAACTTITITITAAGTIACACATITITICAGATAIAAAAG
                                                                                                                                                                                                                                                                                                     1263 TTTAGTTTTTTTGTGAAGTTTTAATTGACTTATTATTATA----TAAATTTTTTTGTTTCATAT
                                                                                                                                                                                                                                                                                                                                                                                                1319 TGATGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTGTGTCTCGTGGTAG
                                                                                                                                     1081 AATATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAAGAG
                                                                                                                                                                                                                                                                                     ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC
                                    CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                    GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                     GACTIGTAGAACTGTAGAAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                An oligonucleotide used as an anti-HIV agent - inhibits CXCR4 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oligonucleotide; anti-HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
1431 GCTAGAAATGATCCCCAGCTGTTATGCATA 1461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98JP-00327942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97JP-00335085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAZ40014 standard; DNA; 1664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (HISM ) HISAMITSU PHARM CO (TOAG ) TOA GOSEI CHEM IND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HIV infection; therapy; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-026817/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CXCR4; inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CXCR4 coding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JP11285391-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-0CT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
             857
                                                          917
                                                                                                                                                            1037
                                                                                                                                                                                                            1097
                                                                                                                                                                                                                                                                                                            1209
                                                                                                                                                                                                                                                                                                                                     1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1379
                                                                                   901
                                                                                                           211
                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                    1261
                                    841
                                                                                                                                     196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAZ40014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAZ40014
                                  ò
                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                       g
                                                                                                                                    ò
                                                                                                                                                      g
                                                                                                                                                                            8 8
                                                                                                                                                                                                                             8 &
                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
```

us-09-367-052-7.rng

```
1036
                                                                                           1020
                                                                                                                 1096
                                                                                                                                         1080
                                                                                                                                                   1140
                                                                                                                                                                                                            1208
                                                                                                                                                                                                                                                                                1260
                                                                                                                                                                                                                                                                                                      1318
                                                                                                                                                                                                                                                                                                                               1320
                                                                                                                                                                                                                                                                                                                                                    1378
                                                                                                                                                                                                                                                                                                                                                                                           1200
                                                                                                                                                                                                                                                                                                                                                                           GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380
                       976
                                                                                         AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC
                                                                                                                                                                                                   GACTITITITITATACGATAAATAACTITITITITAAGTTACACATITITCAGATATAAAG
                                                                                                                                                                                                                                  ACTGACCAGICTIGIACAGITITITITITITITITAATIGACTGIIGGGAGITITAIGIICC
                                                                                                                                                                                                                                                 ACTGACCAATATTGTACAGTTTTTATTGCTTGTTGGATTTTTTGT------CTTGTGTTTCT
                                                                                                                                                                                                                                                                                                                                           TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG
            CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC
                                                           AGCAGAGGGTCCAGCCTCAAGATCCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTT
                                                                                                                                        TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATATAT
                                                                                                                                                                                    1081 AATATATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG
                                                                                                                                                                                                                                                                                1263 Tringiriringigagirirahrigacrirarirana---raaarriririririricahar
                                                                                                                                                                                                                                                                                                                             GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG
                                             CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; neuropeptide Y; NPY; bone disease; bone mass; gene therapy; cerebrospinal fluid; CSF; inositol phosphate; IP; Paget's disease; facture; extracellular signal-regulated kinase; ERK; osteoporosis; osteopenia; bone metastasis; neurotransmitter; osteogenic; NPY X3 receptor; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag= a
/product= "Human neuropeptide Y (NPY) Y3
CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human neuropeptide Y (NPY) Y3 receptor DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
89. .1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (BAYU ) BAYLOR COLLEGE MEDICINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAD12801 standard; DNA; 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-JAN-2001; 2001WO-US002040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-JAN-2000; 2000US-00489872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200153477-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-JUL-2001
                                                                                                                                                              1097
841
                     917
                                             901
                                                                  977
                                                                                          961
                                                                                                                1037
                                                                                                                                      1021
                                                                                                                                                                                                          1149
                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                        1209
                                                                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                    1319
                                                                                                                                                                                                                                                                                                                                                                           1321
                                                                                                                                                                                                                                                                                                                                                                                                                        1381
                                                                                                                                                                                                                                                                                                                                                                                                                                             1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAD12801,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 6
                                       ठ
                                                           Pb
Pb
                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                         ò
                                                                                                          g
                                                                                                                                8
                                                                                                                                                         쉱
                                                                                                                                                                               à
                                                                                                                                                                                                    CD
                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
'n
                                                                                                                                                        The present invention relates to a method for treatment or prevention of bone diseases characterised by loss of bone mass, comprises administering the a mammal a compound that lowers the level of neuropeptide Y (NPY) in the serum or cerebrospinal fillud (CSF) or a compound that lowers the level of inositol phosphate (IP) or extracellular signal-regulated kinase (ERX). The method is specifically used to treat (including by gene therapy) or prevent osteoporosis, osteopenia or Paget's disease, but may also be used e.g., in cases of fractures or bone metastases. These diseases may also be diagnosed by detecting elevated NPY levels, including monitoring of treatment, assessing efficacy of compounds in sequence is a human NPY %3 receptor DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                           283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                         Treating or preventing reduced bone mass, e.g. osteoporosis, by reducing the level of neuropeptide Y activity in blood or cerebrospinal fluid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCTGACTATTCCCGACTTCATCTTTGCCAACG------TCAGTGAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGGTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   224 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    344 CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TICCAGCATATATATGGTGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                             1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 AAATTTTGFGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGGAGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCCAAGGAAACTGCTGGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                  41;
                                                                                                                                                                                                                                                                                                                                                                     Length 1679;
                                                                                                                                                                                                                                                                                                                                          Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                   Query Match 55.1%; Score 933.4; DB 4; Best Local Similarity 81.8%; Pred. No. 4.3e-207; Matches 1154; Conservative 0; Mismatches 216;
                                                                                                                                  Example 7; Page 84-85; 102pp; English
                         å
                          Ducy
                         σ̈
                         M, Karsenty
                                                  WPI; 2001-488709/53
P-PSDB; AAE06690.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                       Amling
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
```

02-MAR-2000; 2000US-00517605

808 780 868 840 928

661 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGGCCCTCAAGACG
14 ATTATCATCTCCAAGCTGTCACACTCCAAGGCCCACCAGAAGCGCAAGGCCCTCAAGACC

TTTCAGCACATCATGGTTGGCCTTATCCTGGCTGGTATTGTCATCCTGTCCTGCTATTGC

689

용 ò g

ઠ

781 ATCCACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 869 Arceacrecercereceaaaarcareaacaaearererea CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC

28-FEB-2001; 2001WO-US006322

UNIV NEW YORK

Geijtenbeek Kooyk Y, Kwon D, Littman DR,

An antibody for the treatment or prevention of HIV-infection comprises gpl20 portion which binds to DC-SIGN or is exposed upon gpl20 binding cDC-SIGN due to concomitant conformational change. WPI; 2001-602565/68.

o Ho

Disclosure, Page 126-127; 131pp; English

1048

986 960

929

셤 8 g ઠે ద 8 g  $\dot{\varsigma}$ g à

841

ઠ

g

ઇ

989 196 1049 1021 1109

901

The specification describes an antibody which is specific for an antigenic fragment of gpl20. This antigenic fragment binds to DC-SIGN or is exposed upon gpl20 binding of DC-SIGN due to concomitant conformational change. DC-SIGN is a receptor that is specifically expressed on dendritic cells and facilitates infection of T lymphocytes with HIV. DC-SIGN is identical to a HIV-1 gpl20-binding C-type lectin. DC-SIGN binds ICAM-3 (which is expressed constitutively on T lymphocytes) with high affinity. The antibody of the invention inhibits the trans enhancement of HIV entry into a T cell or macrophage facilitated by infection. The present sequence represents a human polynucleotide, which is used in the course of the invention 

Seguence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

1140 1220 1200

TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080 TCCACTGAGTCTGAGTTTTCACTCCAGCTAA-----CACAGATGTAAA 1160

AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020

CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG

41;

'n

GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 1320

1261

g &

ద

1321 1391 1381 1443

8 6

8 8

TITAGTITITIGEGAAGTITAATIGACITATITAIA----TAAATITITITITITITICATAT

1331 TGATGTGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG 1390

1330

ACTGACCAATATTGTACAGTTTTTATTGCTTGTTGGATTTTTGT-----CTTGTGTTTC 1274 TCTAGITITIGIGAGGITIGACITAAITITAIAAAATAITGITITITIGITITCAIGI 1260

ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC

1141 1221 1201 1275

Ω

ઠે

1081 AATATATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG

gcragccgraarccrcagcrgrrgcrgcara 1411 

GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA

1380

300 343

584

481

ઠે g

셤 Human; receptor; DC-SIGN; dendritic cell; T lymphocyte; HIV; gpl20; C-type lectin, ICAM3; HIV entry; T cell; macrophage; HIV infection; ss.

Ношо

WO200164752-A2

17-SEP-2001

Nucleotide sequence of a human polynucleotide AA165467 standard; DNA; 1679 (first entry) AND SENTIA B AND SENTIA B AND SENTIA B AND SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA SENTIA S

ВР

480 583 284 CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC CICITIGICARCACICCCTICIGGCAGITGAIGCCAIGGCTGACIGGTACTITGGG AACTICCIATGCAAGGCAGTCCATGTCAACAAGAGTCAACTCTACAGCAGTGTCCTC 524 AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC CAGAAGAAGCTAAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCTTC Length 1679; Query Match 55.1%; Score 933.4; DB 4; Length Best Local Similarity 81.8%; Pred. No. 4.3e-207; Matches 1154; Conservative 0; Mismatches 216; Indels 404 464 241 421 181 ઠ g ઠે g ò 셤 ઠે g ò 셤 ઠે 엄 δ ద δ

```
TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                             1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1320
                                                                                                                                                                                                                                                                                                                                                                            1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACTGTAGAACTGTAGAGGAAGAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1391 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA 1442
                       688
                                                 999
                                                                       748
                                                                                                 720
                                                                                                                  ATTATCATCTCCAAGCTGTCACACTCCCAAGGGCCACCAGAAGGCCCTCAAGACC 808
                                                                                                                                                 780
                                                                                                                                                                          868
                                                                                                                                                                                                                        928
                                                                                                                                                                                                                                                            960
600
                                                                                                                                                                                               781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 840
                                                                                                                                                                                                                                                CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 900
             ATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTG
                                                                                                                                                                                                                                                                                                                                                                  AGCAGAGGGTCCAGCCTCAAAGATCCTCTCCCAAAGGAAAGGAAAAGGAAATTCATCATCTGTT
                                                                                               ATCATCATCATCTTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCCAAGGCCCTCAAGACG
                                                                                                                                                           TCCACTGAGTCTGAGTCTTCACTCCAGCTAA-----CACAGATGTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1161 GACTITITITIATACGATAAATAACTTTITITIAAGTTACACATTTTCAGATATAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOTAGITITIGIGAGGITIGACITAATITIATAAATAITGITITITIGITITCAIGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1331 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG
GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                               TTCCAGCATATAAATGGTGGGTCTCCTGCCCGGCATCGTCATCCTCTCTTACTGC
                                                                                                                                                                                                                                                                                                  CTCTATGCCTTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Acticaccanatriciacacritrizariscrircinesarrundi------crisicirirc
                                                                      rinciaciacarcandernaccinanciacconarantariancarcinaricarecraracia
                                                                                                                                                 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCCTGCCATATTATGTGGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTAGAAATGATCCCCAGCTGTTTATGCATA 1473
                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                          1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1261
541
                     529
                                              601
                                                                      689
                                                                                              199
                                                                                                                       749
                                                                                                                                               721
                                                                                                                                                                       808
                                                                                                                                                                                                                       869
                                                                                                                                                                                                                                                                        929
                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                          686
                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                           1109
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1443
                                                                                                                                                                                                                                                841
              g
                                             ò
                                                                 g
                                                                                      ò
                                                                                                                 g
                                                                                                                                                                  셤
                                                                                                                                                                                              ò
                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          음
                                                                                                                                              ò
                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \dot{o}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
```

DNA encoding human CXC chemokine receptor 4 (CXCR4) ABS53992 standard; cDNA; 1679 (first entry) 02-DEC-2002 

CXC chemokine receptor 4; CXCR4; chemotaxis induction; SDF1a; stromal cell-derived factor lalpha; angiogenesis; atherosclerosis;

restenosis; ischaemic stroke; spinal cord injury; infection; ulcer; human immunodeficiency virus; HIV; acquired immunodeficiency syndrome; AIDS; pain; cancer; benign prostatic hypertrophy; diabetes; obesity; anorexia; bulimia; asthma; Parkinson's disease; acute heart failure; hypotension; hypertension; urinary retention; osteoporosis; stroke; anginal pectoris; mycocardial infarction; benign prostatic hypertrophy; echizophrenia; dyskinesia; Huntingdon's disease; restenosis; inflammatory disease; rheumatoid arthritis; diabetic retinopathy; inflammatory bowel disease; artherosclerosis; Alzheimer's disease; solid tumour; Kaposi Sarcoma; human; gene; ss. 

Homo sapiens

/\*tag= a /product= "CXCR4" /note= "CXC chemokine receptor 4" Location/Qualifiers 89. .1147

US2002107195-A1

17-SEP-2001;

98US-0093596P. 99US-00358624. 21-JUL-1998; 21-JUL-1999;

(SMIK ) SMITHKLINE BEECHAM CORP.

Gupta SK;

WPI; 2002-697879/75. P-PSDB; ABG32977.

Inducing chemotaxis of endothelial cells, useful for regulating angiogenesis, e.g. for treating cancer, comprises treatment with stromal cell-derived factor 1 alpha.

Disclosure; Fig 1; 26pp; English.

The invention describes a method of inducing chemotaxis of endothelial cells by treatment with stromal cell-derived factor lalpha (SDF1a). The method is used for stimulating EC chemotaxis, and thus angiogenesis, and is used for treating atherosclerosis, restenosis, ischaemic stroke and spinal cord injury. Inhibition of this process is useful in treatment and prevention of a very wide range of diseases, such as, infection (by bacteria, fungi, protozoa or viruses such as human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS), pain, cancer and benign prostatic hypertrophy, diabetes, obesity, anorexia, bulimia, cathorisms of disease, acute heart failure, hypotension, thypertension, urinary retention, osteoporosis, anginal pectoris, myocardial infarction, stroke, ulcers, benign prostatic hypertrophy, migraine, vomiting, psychotic and neurological disorders (e.g. anxistety, chizophrenia) and dyskinesias (e.g. Huntingdon's disease, inflammatory diseases, theumatoid arthitis, diabetic retinopathy, inflammatory bowel disease, atherosclerosis, restenosis, Alzheimer's disease, congestive teceptor 4 (CXCR4) polynucleotide encodes the human CXC chemokine

Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

Indels Query Match 55.1%; Score 933.4; DB 6; Best Local Similarity 81.8%; Pred. No. 4.3e-207; Matches 1154; Conservative 0; Mismatches 216;

iŲ.

09 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG 1 ATATACACTICIGATAACTACTCTGAAGAAGIGGGGTCTGGAAGACTATGACTCCAACAAG

ઠે 셤

13   CONTINUED		1201	OY 1261 GAATGAGCGTCTAGGCAGCTGTGGCCAAGTTCTTAGTAGTTGTTATTATGTGTGTG	1321 GACTGTAGAACTGTAGAGGAAGAAACTGAACA               1391 GACTGTAGAAAGGGAACTGAACA	QY 1381 GCTAGCCGTGATCTCAGCTGCATA 1411  Db 1443 GCTAGAATGATCCCAGCTGTTTATGCATA 1473	RESULT 10 ABV78039 ID ABV78039 standard; DNA; 1679 BP.	AX ABV78039; XX XX DT 12-NOV-2002 (first entry)	Hypoxia-regulated protein coding sequence #59. Cytostatic; vasotropic; tranquiliser; antiatherosclerotic; gen	artiinflammatory; vulnerary; gynecological; ophthalmological; ve hypoxia; tumourigenesis; angiogenesis; apoptosis; cancer; ischaemic condition; reperfusion injury; retinopathy; neonatal spreeclapmsia; atherosclerosis; inflammatory condition; wound hea	inflammation; Homo sapiens.	EN WO200246455-A2. XX ED 13-JUN-2002. XX		25-OCT-2001; (OXFO-) OXFOR	PI White J, Mundy CR, Ward NR, Krige D, Kingsman SM, Harris RA; XX DR WPI; 2002-627238/67.	Identifyir conditions types unde		CC The present invention relates to methods for identifying genes and CC proteins that are implicated in a specific disease or physiological of C condition. The method comprises comparing the transcriptome/proteome of a CC specialised cell type implicated in a disease or condition with that of a	CC second specialised cell type, under two experimental conditions, and CC identifying a gene that is differentially regulated in the two CC specialised cell types under experimental conditions. ABV7813-ABV78116 CC and ABP65061-ABP65257 were identified using the methods of the inventionCC The coding sequences and proteins are useful for treating a disease in a	patient, for manufacture of a medicament for treating hypoxia-regulated
	GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC	TTCATCATCTTTTGACTGGCAATAGGGTTGGGATTGGTGATCCTGGTCATGGGTTAC	CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACTGCCTCCAGAAGAAAAAAAA	CICTITGICALACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGCTTTTTGGGCTTTTTTTT	AAATTTTGTGTAAGGCTGTCCATATCTACACTGTCAACCTCTACAGCGGGTTCTC		AGGCCAAGGAAACTGGTGGAGAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC	CTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCGGGGGGACATCAGTCAG	GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTCAA 	TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC	ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACGCACCAAGACGCACCAAGACGCACCAAGACGCAAGACCCTCAAGACCAAGACCCTCAAGACCCACAAGACCCACAAGACCCTCAAGACC	ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCCATATTATGTGGGGATCAGC	ATGGACTCCTTCATCCTTTTGGGAGTCATCAAGGAAGGATGTGACTTCGAGAGCATTGTG	CACAAGTGGATCTCCATCACAGAGGCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC	CTCTAIGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960	AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGGGGG	TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATATTTTCACTCCAGCTAACCCTTATGCAAAGACTTATATATTCACTCCAGCTAACACAGATGTAAAA	aatatatatatatatgataaagaacttttttatgttacacattttccagatataagag 	ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC

do g	ACTGACCAATATTGTACAGTTTTTATTGCTTGTTGGATTTTTGTCTTGTGTTTC
දි දි	1201 TCTAGITITIGIGAGGITIGACTIAATITIAIAAATATIGITITITGITITG
පි පි	1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAG 1320
දි දි	1321 GACTGTAGAACTGTAGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380 
8 S	1381 GCTAGCCGTGATCCTCAGCTGCTTGCTGATA 1411 
RESULT ABV780. ID AI	RESULT 10 ABV78039 ID ABV78039 standard; DNA; 1679 BP. XX
S.	ABV78039;
\$ E \$	12-NOV-2002 (first entry)
SE X	Hypoxia-regulated protein coding sequence #59.
¥ &	Cytostatic; vasotropic; tranquiliser; antiatherosclerotic; gene therapy; antiinflammatory; vulnerary; gynecological; ophthalmological; vaccine;
8	irigenesis, angi lition, reperfus
2 <u>2</u> 2	prescraphmera; acherostrerosts; inframmarory condition; would mearing; inflammation; erythropoiesis; hair loss; human; gene; ds.
88.	Homo sapiens.
<b>E</b> E	WO200246465-A2.
<b>≱</b> £3	13-JJN-2002.
₹ EL \$	10-DEC-2001; 2001WO-GB005458.
\$ Z Z Z Z	08-DEC-2000; 2000GB-00030076. 08-FEB-2001; 2001GB-00003156. 25-OCT-2001; 2001GB-00025666.
\$ # <b>\$</b>	(OXFO-) OXFORD BIOMEDICA UK LTD.
정답다	White J, Mundy CR, Ward NR, Krige D, Kingsman SM, Harris RA; Rayner WN;

1200

1260

8833333333

8 6 8 셤 ò 음 ò g ð g ò 엄

```
TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCCTTATGCAAAGACTTATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA
                            CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                         rccacreaercreaercricaaerrrrcacreecraa-----cacaereraaa
                                                                                                                                                                                                                                                                                                                      1161 GACTTTTTTTTTATACGATAAATAACTTTTTTTTAAGTTACACATTTTTCAGATATAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                    ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTAGTTTTTGTGAGGTTTGACTTAAFTTTATAAATATTGTTTTTTTTGTTTGTTTCATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 irrasirriritasasirraarisacriarrara----raaarrirrirririskara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1331 IGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human, angiogenesis-associated transcript, angiogenesis,
angiogenesis-associated disease, cancer, cytostatic, gene therapy,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Angiogenesis-associated human polynucleotide sequence #41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Aziz N;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Watson SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; 2001US-00784356.
; 2001US-00791390.
; 2001US-0285475P.
; 2001US-0310025P.
; 2001US-0350666P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABX08779 standard; cDNA; 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-FEB-2002; 2002WO-US004915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Glynne R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-040681/03
P-PSDB; ABU03495.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-FEB-2001;
22-FEB-2001;
19-APR-2001;
03-AUG-2001;
13-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Murray R,
                                                                                                                                                                       1049
                                                                                                                                                                                                                        1021
                                                                                                                                                                                                                                                                                                                         1081
                                                                         983
                                                                                                                                                                                                                                                                     1109
                                                                                                                                                                                                                                                                                                                                                                                                                    1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1443
                            901
                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 11
ABX08779
IAXX ABX08779
XX ABX08
XX DT 21-JJ
XX DT 21-JJ
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI
XX DT ABI

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                              g
                                                                                                                                                               셤
                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                    8 8
                                                                                                                                                                                                                                                                                                                                                                                                          ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ď
                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                               .,
conditions, and for regulating tumourigenesis, angiogenesis, apoptosis, biological response to hypoxia conditions, or hypoxic-associated pathology in a patient. The coding sequences and proteins are also useful for monitoring the therapeutic treatment of a disease or physiological condition, such as cancer, ischaemic conditions, reperfusion injury, retinopathy, neonatal stress, preeclapmsia, atherosclerosis, influmy conditions, wound healing, inflammation, erythropoiesis or hair loss
                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                          163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      988
                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCCTGGCCTTCATCAGCCTGGACCTCGCCATTGTCCAGGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTATCATCTCCAAGCTGTCACACTCCAAGGCCCACCAGGAAGCGCAAAGGCCCTCAAGACC
                                                                                                                                                                                                                                                                                                                                                                           GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCGGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTAIGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TICATCATCITCITGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         224 recarcarcricaracrascarrarssescarrasserras recarecresicarsserras
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chechcacharrecedaerrearchraceaace------reacheagea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCATCATCTTTAAGCTGTCACACTCCAAGGGCCACAGAAGCGCAAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCCTGCCATATTATGTGGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Arccacrccrrcarccrccacaarcarcaaccacaccrcrcacacrarcacacrcrcrc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                               41;
                                                                                                                                                                                                                                                Length 1679;
                                                                                                                                                                                              Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                           Score 933.4; DB 6;
Pred. No. 4.3e-207;
0; Mismatches 216;
                                                                                                                                                                                                                                             Query Match
Best Local Similarity 81.8%;
Matches 1154; Conservative
                                                                                                                                                                                                                                                                                                                                                                                             104
                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
```

8 6 ò g ે Op 8 8 à 쉱 å å

à g  $\stackrel{>}{\circ}$ a  $\dot{\delta}$ 

gene;

```
Detecting angiogenesis-associated transcript in a cell for diagnosing and treating cancer by contacting a sample with a polynucleotide that exhibits changes in expression level as a function of time in tissue
                                                                                                                                                                                    undergoing angiogenesis.
```

Example 2; Page 217-218; 291pp; English

The present invention relates to methods and compositions for detecting an angiogenesis-associated transcript in a cell in a patient. The method involves concacting a biological sample from the patient with a polynucleotide that selectively hybridises to a sequence at least 80% identical to any of the angiogenesis-associated human polynucleotide sequences given in the specification. These angiogenesis-associated polynucleotide sequences comprise genes that exhibit changes in expression levels as a function of time in tissue undergoing angiogenesis. The method and the polynucleotide sequences of the invention are useful for diagnosing and treating angiogenesis and angiogenesis-associated diseases e.g. cancer. The polynucleotide sequences are also useful in the gene therapy of such disorders. The sequences are also useful in the gene therapy of such disorders. The angiogenesis-associated proteins encoded by the polynucleotide sequences are useful as a vaccine for therapeutic and prophylactic immunisation. sednences 

120 163 180 240 300 480 223 283 284 cadaadaachdadaadcardaddacaadracadcrdcacchdrdagagccdacchc 343 AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360 463 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420 Arcchégociricarcagrérégacegeraceregecarceregecaceaceagereage 523 524 AGGCCAAGGAAGCIGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC 583 900 9 9 104 ATATACACTTCAGATAACTACACGAGGAATGGGCTCAGGGGACTATGACTCCATGAAG GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCAAC 121 TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 224 recardarerretraderssearristssesearresrearresrearerresreares CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG AACTICCIAIGCAAGGCAGICCAIGICAICIACACAGCACCICIACAGCAGIGICIC -----TCAGTGAGGCA GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC 41; Score 933.4; DB 7; Length 1679; Pred. No. 4.3e-207; 0; Mismatches 216; Indels 41; Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other; crecreactarrecesactrearcritisecaaes Query Match 55.1%; Best Local Similarity 81.8%; Matches 1154; Conservative 61 181 241 301 404 361 464 421 584 541 481 629 601 임 ò 셤 ò 유 ሯ g  $\delta$ g  $\delta$ g ઠે 셤 ઠ a 장 웜 ò g

WO200279411-A2 sapiens

Homo

1048 1080 1220 1200 1274 1320 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA 1442 960 780 868 928 900 TCCACTGAGTCTGAGTCTTCAAGTTTTCACTCCAGCTAA-----CACAGATGTAAAA crerarderrirectrigadeceaarriraaaccrereceadeaceeerererere AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1331 nearcreaterradecadecadecteresecaacricitacricitatricitateresecadadas TITCAGCACATCATGGTTGGCCTTATCCTGCTGGTATTGTCATCCTGTCCTGCTATTGC ATTATCATCTCCAAGCTGTCACACTCCAAGGCCCACCAGAAGCGCCAAGGCCCTCAAGACC ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCCATC CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT AATATATATATATATATATAAAGAACTTTTTATGTTACACATTTTCCAGATATAAAGAG 1161 GACTTTTTTTTTATACGATAAATAACTTTTTTTTAAGTTTACACATTTTTCAGATATAAAAG ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC TITAGITITIGIGAAGITITAATIGACITATITATA----TAAATITITITITIGITITCATAT 1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG GACTGTAGAACTGTAGAAGAAACTGAACATTTCCAGAATGTGTGTAAATTGAATAAA ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGGCTGCCATATTATGTGGGGATCAGC Acticaccaararicracacrirrirarrecrirerrecarrirrier-----cricrerrire Human; microarray; solid surface; immobilised probe; CC-RCC; differential expression profile; aggressive CC-RCC tumour type, non-aggressive CC-RCC tumour type; clear cell renal carcinoma; gene expression profiling; tumour tissue; gene; ss. Human cDNA sequence #26 up-regulated in CC-RCC patients. GCTAGAAATGATCCCCAGCTGTTTATGCATA 1473 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411 ABX74454 standard; cDNA; 1679 entry) 21-MAR-2003 1049 1021 1109 1081 1141 1221 1201 1391 1443 689 661 749 721 781 841 929 901 989 196 1321 1381 g ö ద ò 유 ð g В ò 8 S g 8 d à a g g SKSKEEKKEKK δ 8 ò Š ò 유 ઠે 용

Ξ

Takashi

BT,

```
The present invention relates to a microarray comprising a matrix of at least one cDNA probe from a set of probes immobilised to a solid surface in a predetermined order, where a row of pixels corresponds to replicates of one distinct probe from the set. The probes are complementary to muchalic acid sequences that are expressed differentially in aggressive as compared to non-aggressive types of clear cell renal carcinoma (CC-CC) microard that hybridise to the probes under high stringency conditions. The microarray is useful for the proposis of patients with CC-RCC, wherein aggressive and non-aggressive CC-RCC tumour types are characterised by differential expression profiles of genes that hybridise with one or more probes immobilised on the microarray. The arrays are useful for gene expression profiling of tumour and normal tissues. The present sequence represents a human cDNA sequence up-regulated in CC-RCC patients
                                                                                                                                                                                                                                               New microarray, comprising a matrix of cDNA probe from a set of probes immobilized to a solid surface in predetermined order, useful in the prognosis of patients with clear cell renal carcinoma.
                                                                                                                                                                                                                                                                                                                       Claim 35; Page 132-133; 179pp; English.
                                                        29-MAR-2002; 2002WO-US009576
                                                                                            29-MAR-2001; 2001US-0279411P
                                                                                                                                                                       Teh
                                                                                                                              (VAND-) VAN ANDEL INST
                                                                                                                                                                                                           WPI; 2003-040679/03
                                                                                                                                                                       Rhodes D,
                      10-0CT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           164
                                                                                                                                                                    Haab B,
8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
```

41; Query Match 55.1%; Score 933.4; DB 7; Length 1679; Best Local Similarity 81.8%; Pred. No. 4.3e-207; Matches 1154; Conservative 0; Mismatches 216; Indels 41; Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

d

6 8 6

8  $\dot{\delta}$ ద ठे 6 B

g

chemokine receptor CXCR4

Nucleotide sequence of human

1048 1020 1140 1200 1260 1320 1390 1442 808 840 900 886 960 660 720 780 868 928 TCCACTGAGTCTGAGTCTTCAAGTTTTCACTCCAGCTAA-----CACAGATGTAAAA 1331 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA ATTATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACC ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGC 869 ATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGGTTTGAGAACACTGTG CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG -TCAGTGAGGCA GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTTCAA TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCCTGTTACTGC 689 Trrcascacarcarscrissrisscriarccrescratraristications ATCATCATCTCTAAGGTGTCACACTCCAAGGGCCACCAGAAGGGGCCTCAAGACG ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGGCTGCCATATTATGTGGGGATCAGC ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC cicranderriceriogadecaariraaaacreteeceageaceacreterere AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAAGCGGGGGACACTCTTCCGTC 1049 AGCAGAGGGTCCAGCCTCAAGATCCTCCCAAAGGAAAGCGAGGTGGACATTCATCTT TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATATAT 1081 AATATATATATATATATATATAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG GACTITITITITATACGATAAATAACTTTTTTTAAGTTACACATTTTCAGATATAAAAG ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC -----CTTGTGTTTTC TCTAGTTTTTGTGAGGTTTGACTTAATTTATAAATATTGTTTTTTGTTTTGTTTCATGT TTTAGTTTTTGTGAAGTTTAATTGACTTATTATA ----TAAATTTTTTTTGTTTCATAT GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAG GACTGTAGAACTGTAGAAGGAAGAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA CIGCIGACIATICCCGACTICATCITIGCCAACG----GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411 GCTAGAATGATCCCCAGCTGTTTATGCATA 1473 CDNA; 1679 (first entry) standard; 28-MAY-2003 1109 1141 721 809 1021 1161 1221 1201 1275 1321 1391 1381 1443 541 629 601 661 749 781 841 929 901 989 961 ABZ68886 ABZ68886 RESULT 13 ABZ68886 ID ABZ6 XX ABZ6 XX ABZ6 XX DT 28-P XX XX g 셤 ð 셤 ð ઠે g ò a ò g q à g 8 g ઠે 吕 셤 정. 염 엄 ठे ઠ ઠ ò ઠે 셤 ò

```
ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTGACCAGTCTTGTACAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                       749
                                                                                                                                                                                                                                                                                                                                           929
                                                                                                                                                                                                                                                                                                                                                                                   989
                                                                                                                                                                                                                                                                                                                                                                                                                          1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1201
                                                                                                                                                                                                                                                              809
                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                     869
                                                                                                                                                                                                                                                                                                                                                                901
  361
                     464
                                       421
                                                           524
                                                                             481
                                                                                                 584
                                                                                                                      541
                                                                                                                                        629
                                                                                                                                                             601
                                                                                                                                                                               689
                                                                                                                                                                                                   661
                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                 8 8 8 8
                                                                                               g
                                                                                                                                                                          g
                                                                                                                                                                                            ò
                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                        8 6
                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                          ₹
                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 & B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                      g
                                                                           \dot{\delta}
                                                                                                                   ઠે
                                                                                                                                    ద
                                                                                                                                                          8
                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                The present sequence encodes human chemokine receptor CXCR4. The specification describes a method for modulating viral infection of a cell. the method comprises modulating a binding interaction between a cell chemokine-receptor and a surface protein of the virus. The provise is that the cell chemokine-receptor is not CX3CR1 and that the virus is not HIV. The method is useful for treating or preventing respiratory virus infection in vertebrates, more particularly respiratory syncytial virus (RSV) infections, and related diseases, e.g. bronchicis, pneumonia or asthma
                                                                                                                                                                                                                                                       Modulating viral infection of a cell, for treating or preventing respiratory virus infections, bronchitis, pneumonia or aschma, by modulating a binding interaction between a cell chemokine-receptor and surface protein of the virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APATACACTTCAGATAACTACACCAAGGAAATGGGCTCAGGGGACTATGACTTCCATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAATTTTTGTGTAAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGAAGAAGCTAAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cicitificateateatectricidedeadricardeceracaaacreciacitifica
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC
 Human, chemokine receptor, CXCR4, viral infection, surface protein, respiratory virus infection, respiratory syncytial virus infection, RSV infection; pneumonia, asthma, gene,
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1679;
                                                                                                                                                                                                                                                                                                                                                                                                                                     U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 55.1%; Score 933.4; DB 7; Best Local Similarity 81.8%; Pred. No. 4.3e-207; Matches 1154; Conservative 0; Mismatches 216;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0
                                                                                                                                                                                                                                                                                                                Disclosure; Page 117-119; 120pp; English
                                                         Location/Qualifiers
89. .1147
/*tag= a
                                                                                         "CXCR4"
                                                                                                                                                                       10-AUG-2001; 2001US-0311088P
                                                                                /*tag= a
/product=
                                                                                                                                                                                            (TOPI-) TOPIGEN PHARM
                                                                                                                                                                                                               ĸ
                                                                                                                                                                                                                                  WPI; 2003-256541/25.
P-PSDB; ABP97733.
                                                                                                                                                                                                               Zemzoumi
                                                                                                             WO2003014153-A2
                                                                                                                                                    12-AUG-2002;
                                          sapiens
                                                                                                                                20-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                344
                                                                                                                                                                                                               <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     404
                                                                                                                                                                                                                Renzi
                                                             Key
   8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                        583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGATGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCTCGTGGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACAAGTGGATCTCCATCACAGAGGCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u> cretarectriociroda gecalantira a la cretece de de cecenera en caretera e la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete dela carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete de la carete</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081 AATATATATATATATATGATAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1161 GACTITITITITATAGGATAAATAACTITITITITAAGTTACACATITITICAGATATAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAATGAGCGTCTAGGCAGGACCTGTGGCCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGGGTGTAGTGAATCACGTAAA
                                                                                                                                                                                                                                                                                                                                                                                               <u>dargacadananchdadadadacatricnaceceaangacindidagandinginginginging</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCATCATCTTCTAAGCTGTCACACTCCAAGGGCCACCAGGAAGGCGCAAGGCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CICIAIGCCITCCICGGGGCCAAGIICAAAAGCICTGCCCAGCAIGCACTCAACTCCAIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rccacreacrereacrercaacririzereceaceaa-----cacacaareraaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACTGTAGAACTGTAGAAGGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA
Arcregectreateagrergaeegeeaecaregeeaegeeae
                                                                                                                                                                                                                                                                                                                                  GAIGACAGGIACAICIGIGACCGCCITTACCCCGAIAGCCIGIGGAIGGIGITITCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCTGCTATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTATCATCTCCAAGCTGTCACACTCCAAGGGCCCACCAGAAGCGCAAAGGCCCTCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>Acadicarcercarectricirelectecentectraceracerecentedes</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                          AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                        AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTAGAATGATCCCCAGCTGTTTATGCATA
```

The may to 13:54:40 2004

us-09-36/-052-/.rng

Human CXC chemokine receptor 4 nucleotide SEQ ID NO:75,

G protein-coupled receptor; GPCR; antigenic peptide; gene therapy; G protein-coupled receptor modulator; antibody; immune-related disease; growth-related disease; call regeneration-related disease; ALDS; cancer; immunological-related cell proliferative disease; autoimmune disease; Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy; osteoporosis; cardiomyopathy; inflammation; Crohn's disease; diabetes; graft versus host disease; pathy; proliferative disease; multiple sclerosis; pain; psoriasis; anxiety; depression; schizophrenia; dementia; memory loss; hypertension; hypertension; renal disorder; rheumatoid arthritis; trauma; ulcer; gene; ds.

(LIFE-) LIFESPAN BIOSCIENCES INC

New isolated antigenic peptides e.g., for G protein-coupled receptors (GPCR), useful for diagnosing and designing drugs for treating conditions in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or

Disclosure, Fig 1; 523pp; English

The present invention describes antigenic peptides (I) comprising: (a) any one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino acid acid described: (1) an assay for the detection of a particular grow of the complex of any one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino acid acid described: (1) an assay for the detection a sample; and (2) an isolated antibody having high specificity and high affinity or avidity for a particular GPCR. (T) can be used as GPCR modulators and in antibody against a particular GPCR, and in the production of specific antibody against a particular GPCR, and in the production of specific antibody against a particular GPCR, and in the production of specific antibody against a particular GPCR, and in the production of specific consistence or absence of corresponding GPCRs. The antigenic peptides for GPCRs and antibodies are useful for diagnosing and designing drugs for presence or absence of corresponding GPCRs. The antigenic peptides for GPCRs and antibodies are useful for diagnosing and designing drugs for treating immune-related disease, immunological-related cileases, cell related diseases, immunological-ralated cell proliferative disease, or autoimmune diseases, immunological-ralated cell proliferative disease, or autoimmune disease, e.g. ALDS, Alzheimer's disease, atherosclerosis, bacterial, fungal, protozoan or viral infections, inflammation, allergies, Crohn's disease, diabetes, graft versus host disease, multiple sclerosis, pain, psoriasis, hypotension, schizophrenia, dementia, mental retardation, memory loss, epilepsy, asthma, tuberculosis, obesity, nausea, hypotension, hypotension, renal disorders, rheumatoid arthritis, trauma, ulcers, or any other disorder in mynich GPCRs are involved. The antibodies may be used in immunoassays and immunodiagnosis. ABZ42523 to ABZ4269 encode GPCR proteins given in ABP81675 to ABB42523 to ABZ4269 encode exemplification of the present invention 

U; 0 Other T; 0 C; 368 G; 504

1048 1020 ŝ 240 300 360 420 540 900 099 120 223 180 283 343 403 463 523 480 583 628 688 748 720 808 780 868 840 928 900 988 163 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGGGGAGGACACTCTTCCGTC 104 ATATACACTICAGATAACTACACCGAGAAATGGGCTCCAGGGGACTATGACTCCATGAG 164 GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC 344 CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG AACTTCCTATGCAAGGCAGTCCATGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTC 421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC ATTATCATCTCCAAGCTGTCACACTCCAAGGCCCACAGAAGCGCAAGGCCCTCAAGACC ATCGACTCCTTCATCCTCGAAATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTG TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGATGCTTTGGG AAATITITGTGTAAGGCTGTCCATATCATCTACACGTCAACCTCTACAGCAGCGTTCTC ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCACAACAGTCAA 524 AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAA TICCAGCATATAATGGTGGGTCTCATCCTGCCGGCATCGTCATCCTCTCTTACTGC TITCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGC ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCCAAGGCCCTCAAGACG 809 ACAGTCATCCTCATCCTCGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGC ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC CTCTATGCCTTCCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG atatacacttctgataactactctgaagaagtggggtctggagactatgactccaacaag GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC Length 1679 Indels 0; Mismatches 216; DB 7; Score 933.4; DB 7. Pred. No. 4.3e-207 55.1%; 81.8%; Query Match Best Local Similarity 81.8 Matches 1154; Conservative н 224 404 464 584 629 749 698 686 1049 181 284 241 301 661 721 781 929 121 361 601 689 841 901 61 481 541 ద ઠે g  $\delta$ 임  $\dot{\delta}$ 성 음 8 ò ద  $\dot{\delta}$ D ò 음 상 음 6 6 6 6 6 셤 8 g ò g  $\delta$ 셤 ò 셤 δ 8

```
1200
                                                                                                                                                                                             1330
                                                                                                                                                                                                                        1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 1320
                                                                                                                                                                                                                                                 1331 reargreterargeageagerereregeekarretragreergrafereregeage 1390
                                                                                                                                                                                                                                                                               GACTGTAGAACTGTAGAGGAAGAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380
                                                                                                                                                                                                                                                                                              1109 iCCACTGAGTCTGAGGTTTTCACTCCAGCTAA-----CACAGATGTAAAA
                                                                                                                                                                                           triagitititicigaagititaatitgacitatitata----taaatitititititicatat
TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT
                                                                       ACTGACCAGICITGIACAGITTTTTTTTTTTTAATTGACTGITGGGAGTTTATGTTCC
                                                    <u>AATATATATATATATATATGATAAAGAACTTTTTATATGTTACACATTTTCCAGATATAAGAG</u>
                                                                                                                                      Acreaceanarreracacririrarrecrirerrearranter-----cristerire
                                                                                                                                                                 1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                               deradaaardareeedadererrardeara 1473
                                                                                                                 1141
                                                                                                                                            1221
                                                                                                                                                                      1201
                                                                                                                                                                                                 1275
                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                1391
                                                                                                                                                                                                                                                                                                                                                                     1443
    1021
                                                          1081
                                                                                 셤
                                                                                                              8 6
                                                                                                                                                                   8 8
                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                   2 4
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                 셤
                                                        à
```

ADC98645 standard; cDNA; 1679 BP 

ADC98645;

(first entry) 01-JAN-2004 Human CXC chemokine receptor 4 (CXCR4)-encoding cDNA.

Human, CXC chemokine receptor 4; CXCR4; CXCR4 inhibitor; small cell lung cancer; SCLC; cellular adhesion; cellular proliferation; metastasis; motility; morphological change; drug screening; monitoring; cytostatic; gene; ss.

Homo sapiens

/\*tag= a /product= "Human CXCR4" Location/Qualifiers

WO2003079020-A2

25-SEP-2003

20-MAR-2003; 2003WO-EP002916.

20-MAR-2002; 2002US-0366370P

(DAND ) DANA FARBER CANCER INST INC. (NOVS ) NOVARTIS AG.

Salgia R;

WPI; 2003-757037/71. P-PSDB; ADC98646.

Use of a CXC chemokine receptor 4 (CXCR4) inhibitor, for modulating cellular adhesion or inhibiting proliferation, movement, or morphological change in a small cell lung cancer (SCLC) cell population, or for treating a subject having SCLC

Disclosure, SEQ ID NO 1; 78pp; English

The invention relates to methods and compositions for inhibiting small cell lung cancer (SCLC) proliferation and metastasis through modulation cell lung cancer (SCLC) proliferation and metastasis through modulation of the activity or expression of CXC chemokine receptor 4 (CXTR4), and coptionally, that of the tyrosine kinase receptor c-Kit. Administration of a CXCR4 inhibitor modulates cellular adhesion and inhibits cellular copilation. The invention is based on the finding that CXCR4 is ubiquitously expressed, and SCLC cell.

CC proliferation, whether a sample of conserved concerved to CXCR4 inhibitors; cc determining whether a sample of lung cancer cells expresses CXCR4 and is therefore amenable to CXCR4 inhibitor therapy; determining whether a sample of lung cancer cells coexpress CXCR4 and c-Kit is is therefore amenable to treatment with a combination of a CXCR4 inhibitor and a c-Kit inhibitor compination of a CXCR4 inhibitor therapy or cxCRA inhibitor therapy should be continued, by determining CXCR4 (and optionally c-Kit) are civily in two or more tumour samples taken from an SCLC patient during the course of treatment cxCR4 inhibitor compination are useful for treating SCLC, for screening for agents for the treatment of SCLC, for determining whether a SCLC from individual patients is suitable for treatment with agents of the invention, and for determining whether such treatment is effective and should be continued. The present sequence represents CDNA encoding human cyck, which can be used in methods of the invention. ¥88888888888888888888888888888888

Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

540 660 120 223 180 283 240 343 300 403 360 463 420 523 480 583 9 1 ATATACACTICIGATAACTACTCIGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG 104 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG 164 daacccrentriccercaadaaarecraarricaaraaarcriccreccaccarcrac 121 ITCATCATCITCITGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 301 AAATTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 404 AACTICCTATGCAAGGCAGTCCATGTCACACAGTCAACCTCTACAGCAGTGTCTCTC 361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 464 AICCIGGCCIICAICAGICIGGACGCIACCIGGCCAICGICCACGCCAACAGICAG crecreacratrocceacricarcrireccaace-----reacraeaea GATGACAGGTACATCTGTGACCGCCTTTACCCCGGATAGCCTGTGGATGGTGGTGTTTCAA TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC CAGAAGAAGCTAAAGCAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC CICITIGICATCACACTCCCCTICIGGCAGTIGATGCCATGGCTGACTGGTACTTTGGG AGGCCAAGGAAACTGCTGGAGAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC Gaps Query Match

SS.1%; Score 933.4; DB 9; Length 1679;
Best Local Similarity 81.8%; Pred. No. 4.3e-207;
Matches 1154; Conservative 0; Mismatches 216; Indels 41; 541 629 584 601 61 241 421 181 8 6 ద g ò g 상 원 ò 유 ò g 8 8 ò ď à 셤  $\delta$ 셤 ò

```
989 CICTAIGCTITCCTIGGAGCCAAAITIAAAACCICIGCCCAGCACCACCACCCCTGGG 1048
                                                                                                                                                                                                                                        AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGGGACACTCTTCCGTC 1020
                                                                                                                                                                                                                                                      1049 AGCAGAGCTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTT 1108
                                                                                                                                                                                                                                                                                                                                                                       1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1321 GACTGTAGAACTGTAGAGGAAGAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380
                                                                                                                                                                                                                                                                                                                                                                                    1221 ACTGACCAATATTGTACAGTTTTTATTGCTTGGATTTTTGT-----CTTGTGTTTC 1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1261 GAATGAGGGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841 CACAAGTGGATCTCCATCACAGAGGCCTCGCCTTTCCACTGTTGCCTGAACCCCATC 900 929 CACAAGTGGATTTCCATCACCAGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC 988
                                                                                                                                                                                             CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960
                                           808
                                                                780
                                                                                     868
                                                                                                           840
                                                                                                                    869 ATCGACCTTCATCCTCCTGGAAATCATCAAGGAAGGGTGTGGAGTTGAGAACACTGTG 928
ATCATCATCTCTAAAGCTGTCACACTCCAAGGGCCCACAGAAGCGCCAAAGACG
                                                                                                        781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Search completed: May 17, 2004, 06:37:17 Job time: 736.44 Becs
                                                                                                                                                                                             901
                                                                                                                                                                                                                                        961
                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                    à
                                        셤
                                                              ò
                                                                                  a
                                                                                                        ò
                                                                                                                          요
                                                                                                                                                  ò
                                                                                                                                                                    qq
                                                                                                                                                                                            à
                                                                                                                                                                                                                d
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                              음
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

us-09-367-052-7.rni

```
181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 4, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 2, Appli
Sequence 45, Appli
Sequence 45, Appli
Sequence 45, Appli
Sequence 6, Appli
Sequence 6, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 5, Appli
Sequence 1213, Ap
Sequence 14, Appl
                                                     May 17, 2004, 05:52:09 ; Search time 135.63 Seconds (without alignments) 6931.281 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                               1 atatacacttctgataacta......taaaagtcaatgataaactt 1694
                                                                                                                                                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                Issued Patents NA:*
1: /cgn2_6/ptodata/2/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/2/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/2/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/2/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
5.1.6
Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-582-224A-5
US-09-023-655-1213
US-09-517-605-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-202-056-6
US-08-076-093A-5
US-08-701-265-5
US-08-284-586-5
US-08-805-478-5
                                                                                                                                                                                hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-802-627A-5
US-08-801-238-5
US-08-801-228-5
                                                                                                                                                             682709 segs, 277475446 residues
                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
GenCore version
Copyright (c) 1993 - 2004
                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                     nucleic search, using sw model
                                                                                                                                IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                  Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                           US-09-367-052-7
1694
                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                     Query
Match 1
                                                                                                                                                                                                                                                                                                                                                                                                                                           οĘ
                                                                                                                                                                                                                                                                                                                                                                                                                                 Perfect score:
                                                                                                                                 Scoring table:
                                                                                                                                                                                Total number
                                      OM nucleic
                                                                                                                Sequence:
                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                    Database
                                                         е
::
                                                                                                                                                                                                                                                                                                                                                                                                                                            Result
                                                         Run
```

```
'n
          Sequence 3, Appli
Sequence 1, Appli
Sequence 199, Appl
Sequence 65, Appl
Sequence 65, Appl
Sequence 1052, Appl
Sequence 1052, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 280, Appl
Sequence 23, Appl
Sequence 23, Appl
Sequence 23, Appl
Sequence 23, Appl
Sequence 23, Appl
Sequence 23, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAATTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGGGTTCTC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92 ATATACACTICAGATAACTACACCGAGGAAATGGGCTCAGGGACTATGACTCCATGAAG 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              272 CAGAAGAAACTGAGAAGATGACGGACAAGTACAGGCTGCACTGTCAGTGGCCGACCTC 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 55.1%; Score 933.4; DB 4; Length Best Local Similarity 81.8%; Pred. No. 1e-210; Matches 1154; Conservative 0; Mismatches 216; Indels
          PCT-USS4-06380-3
US-08-982-433-7
US-09-628-655-1
US-09-108-337B-65
US-09-08-337B-65
US-09-08-337B-65
US-09-016-434-1052
US-08-138-1
US-08-108-138-1
US-08-108-138-1
US-08-108-138-1
US-08-153-848-23
US-09-170-496D-173
US-09-170-496D-173
US-09-18-18-23
US-09-29-843A-23
US-09-29-843A-23
US-09-29-843A-23
                                                                                                                                                                                                                                                                                                                                                                     US-09-582-224A-5

US-09-582-224A-5

Sequence 5, Application US/09582224A

Patent No. 642308

GENERAL INFORMATION:

APPLICANT: 101MA, Osamu

APPLICANT: SHIMADA, Takashi

TITLE OF INVENTION: HIV Infection Inhibitors

FILE OF INVENTION: HIV Infection Inhibitors

FILE OF INVENTION: HIV INFECTION INDER:

CURRENT APPLICATION NUMBER: US/09/582,224A

CURRENT APPLICATION NUMBER: PCT/JP99/06534

PRIOR FILING DATE: 1999/11/24

NUMBER OF SEQ ID NOS: 5

SOFTWARE: Microsoft Word

SEQ ID NO 5

LENGTH: 1664
                                                                                                                                                                                                                                                                                                                            ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
; OTHER INFORMATION: CDNA of CXCR4
US-09-582-224A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Artificial Sequence
1679
11679
228188
228188
22085
2085
1107
1107
1107
1107
2751
2751
2751
```

요상

8

8 & 8

```
1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1319 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG 1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1379 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTTAATCACGTAAA 1430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CICTAIGCCTICCICGGGGCCAAGIICAAAAGCICIGCCCAGCAIGCACICAACICCAIG 960
                                                                                                                                                            480
                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                       676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     917 CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC 976
                                                                                                                                                                                                                571
                                                                                                                                                                                                                                                                                                                         cracidaciatroccaactroncriraccaaca------readagea 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tricadcacarcarderredectrarecreecreerarrerearcarecreteraries 736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        737 ATTATCATCTCCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACC 796
AACTICCIAIGCAAGGCAGICCAIGICAICIACACAGAGCAACCICIACAGCAGIGICCIC 451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1097 TCCACTGAGTCTTGAGTTTTTCACTCCAGCTAA-----CACAGATGTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1263 TTTAGTTTTTGTGAAGTTTAATTGACTTATTTATA----TAAATTTTTTTTTGTTTCATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            857 ATCGACTCCTTCATCCTCGGAAATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1081 AATATATATATATATATATAAAGAACTTTTTATGTTACACATTTTCCAGATATAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1209 ACTGACCAATATTGTACAGTTTTTATTGCTTGTTGGATTTTTGT-----CTTGTGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA
                                                                                                                                                                                                                                                                        541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCATCATCATCTAAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGC
                                                                                                                                                                                                                512 AGGCCAAGGAAGCIGTIGGCIGAAAAGGIGGICIAIGIIGGCGICIGGAICCCIGCCIC
                                                                                                                                                                                                                                                                                                                                                                                                                                    dangacaganananchgraaccachrchaccccaangachnangachgranghannanga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                  ATCTGGCCTTCATCAGTCTGGACGCTACCTGGCCATCGTCCACGCCACCAACAGTCAG
                                                                                                                                                               AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               deradaaardareeedadererrardeara 1461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                        152
                                                                                                                                                         121
                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                            572
                                                                                                                                                                                                                                                                                                                                                                                                                                    617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
```

g

ઠે

8 8 8

g

8 8 8

8 & 8

à

යි යි

g

8 6 8 6

음 상 음

8 8

6 g 6

```
## Sequence 1213, Application US/09023655

| Sequence 1213, Application US/09023655
| Patent No. 6607879
| GENERAL INFORMATION:
| APPLICANT: Susan G. Stuart
| APPLICANT: Susan G. Stuart
| APPLICANT: Geffrey J. Sellhamer
| TILLE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL GENE
| TILLE OF INVENTION: EXPRESSION
| NUMBER OF SEQUENCES: 1506
| CORRESPONDENCE ADDRESS: 1506
| CORRESPONDENCE ADDRESS: ADDRESSE: THOUSE PHARMACEUTICALS, INC.
| STREET: 3174 PORTER DRIVE
| CITY: PALO ALTO
| STRATE: CALIFORNIA COUNTRY OF THE DETECTION OF BLOOD CELL GENE
| COUNTRY OF THE ORDER OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE OF THE O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cagaagaaacrigagaagcargacaacaagracaggcrigcaccrigricagriggccgaccric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CICTITGICATCACACTCCCCTTCTGGGCAGTTGATGCCATGGTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92 araracacritcacaraacracaccaaccaacaaaraccricaccaccararaacriccarcaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                212 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                152 GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 55.1%; Score 933.4; DB 4; Length 1664; Best Local Similarity 81.8%; Pred. No. 1e-210; Matches 1154; Conservative 0; Mismatches 216; Indels 41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:

COUNTRY:

COUNTRY:

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
CIARSTITCATION NUMBER: US/09/023,655
FILING DATE:
CLASSIFICATION:
MAPME: Zeller, Karen J.
RECISTRATION NUMBER: 37,071
RECISTRATION NUMBER: 37,071
RECISTRATION NUMBER: 37,071
RECISTRATION NUMBER: (650) 855-055
TELECOMMINICATION INFORMATION:
TELECOMMINICATION INFORMATION:
TELECOMMINICATION NUMBER: (650) 855-055
TELECOMMINICATION NUMBER: (650) 855-055
TELECOMMINICATION FOR SEQ ID NO: 1213:
SEQUENCE CHARACTERISTICS:
FENCENCAL ACCOUNTY CASE OF THE COMPANION FOR SEQ ID NO: 1213:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
STRANDEDNESS: singl
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ) IMMEDIATE SOURCE:
; LIBRARY: GENBANK
; CLONE: G219868
US-09-023-655-1213
US-09-023-655-1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
```

PRESULT 3  REGULT 3  REGULT 3  US-09-517-605-14  Sequence 14, Application US/09517605  Sequence 14, Application US/09517605  Sequence 14, Application US/09517605  Sequence 14, Application US/09517605  Sequence 14, Application US/09517605  Sequence 14, Application US/09517605  Sequence 14, Application US/09517605  Sequence 14, Application US/09517605  TITLE OF INVENTION: CELLS  TITLE OF INVENTION: CELLS  TITLE OF INVENTION: CELLS  CURRENT FILING DATE: 200-03-02  NUMBER OF ENQ 149-1-017  CURRENT FILING DATE: 200-03-02  NUMBER OF ENG 170  SOFTWARE: PatentIN Ver. 2.0  SOFTWARE: PatentIN Ver. 2.0  SOFTWARE: PatentIN Ver. 2.0  MATCHES 1154; CONSERVATIVE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF MAINSTANCE OF MAINSTANCE OF CONSERVABLE OF MAINSTANCE OF MAINSTANCE OF MAINSTANCE OF MAINSTANCE OF MAINSTANCE OF MAINSTANCE OF MAINSTANCE OF MAINSTANCE OF MAINSTANCE OF MAINSTANCE OF MA	Db 629 GATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGTGG
312 CICCITICATORIA NOCITICALIZA CONTINUA NOCITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATITICAL NATIT	GACT

```
GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 55.1%; Score 933.4; DB 1; Best Local Similarity 81.8%; Pred. No. 1e-210; Matches 1154; Conservative 0; Mismatches 216;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCTGACTATTCCCGACTTCATCTTTGCCAACG
                                                                                                                                                                                                                                                                                                                      LENGTH: 1737 bases
TYPE: nucleic acid
STRANDEDNESS: single
US-08-202-056-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                       AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020
                                                                                                                                                                                                                                                                                                                                      1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                 1081 AATATATATATATATAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACTGIAGAACTGTAGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1442
                                                                                                                                                                                                                                                                                           1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1221 Acreaccararderacacrititrariscriciresaritritici-----cricicidiric 1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAG 1320
                                                                                                                 ACAGICATCCTCATCCTGGCTTTCTTCGCTGTTGGCTGCCTTACTACATGGGATCAGC 868
                                                                                                                                                      840
                                                                                                                                                                                                         CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 900
                                                                                                                                                                                                                                                                  960
                748
                                                                      808
                                                                                                  780
                                                                                                                                                                    ATGACTCCTTCATCCTCCTGGAAATCATCAAGGAGGGGTGTGAGTTTGAGAACACTGTG 928
                                          ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG 720
1109 TCCACTGAGTCTGAGTCTTCAAGTTTTCACTCCAGCTAA-----CACAGATGTAAAA
                                                                                                                                                   781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                                                                                 CTCTATGCCTTCCTCGGGGCCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1391 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA
                                                         1161 GACTITITITIATACGATAAATAACTTITITITAAGTTACACATTITICAGATATAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1201 TCTAGITITIGIGAGGITIGACTTAATTTATATAAATATIGTTTTTTGTTTGTTTCATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TriadrititicidaaGritaaricaCritaritara---raaarititititicatar
                                                                                              721 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGGCTGCCATATTATGTGGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 4, Application US/08202056

Fatent No. 544021

GENERAL INFORMATION:

APPLICANT: Chuntharapai, Anan
APPLICANT: Chuntharapai, Anan
APPLICANT: Kim, Kyung Jin
APPLICANT: Lee, James
TITLE OF INVENTION: Antibodies to Human IL-8 Type B Receptor
CORRESPONDENCE ADDRESS:
ADDRESSEB: Generacch, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTAGAAATGATCCCCAGCTGTTTATGCATA 1473
                                         661
                                                                                                                          809
                                                                                                                                                                               869
                                                                                                                                                                                                         841
                                                                                                                                                                                                                                     929
                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                          989
                                                                                                                                                                                                                                                                                                                      196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1443
                                      ò
                                                                g
                                                                                     ठ
                                                                                                                 g
                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                   $ g
                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Db
                                                                                                                                                                      g
                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
```

1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG Length 1737; Indels ZIP: 94080

COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk computible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Pathin (Genericeh)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/202,056
FILING DATE: 25-FEB-1994
CLASSIFICATION DATA:
APPLICATION NUMBER: US/08/201
FILING DATE: 29-MAR-1991
ATTORNEY/AGENT INFORMATION:
FILING DATE: 29-MAR-1991
ATTORNEY/AGENT INFORMATION:
FILING DATE: 29-MAR-1991
ATTORNEY/AGENT INFORMATION:
FELECOMMUNICATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 706P3
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION PROPERTION:
TELECOMMUNICATION PROPERTION:
TELECOMMUNICATION PROPERTION:
TELECOMMUNICATION POR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 DASSES

690

S

```
US-08-076-093A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1223 ActicAccanaticIncacitititaticCiticIncantititici-----cricicIntric 1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1393 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA 1444
                                                                                                                                                                                                                                                                                                                                                                                                                   961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCACGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                            1051 AGCAGAGGTCCAGCCTCAAGATCCTCCCAAAGGAAAAGCGAGGTGGACATTCATCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1111 TCCACTGAGTCTTCAAGTTTTCACTCCAGCTAA-----CACAGATGTAAAA
                                                                                                 751 ATTATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACC
                                                                                                                                                       811 ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCTTACTACATTGGGATCAGC
                                                                                                                                                                                                     781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                                                                                         CACAAGIGGAICTCCAICACAGAGGCCCICGCCIICTICCACIGIIGGCCIGAACCCCAIC
                                                                                                                                                                                                                                                                                                                                             CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081 AATATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1163 GACTTTTTTTTTATACGATAAATAACTTTTTTTAAGTTACACATTTTTCAGATATAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTAATGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTAGITITIGICAGGITTGACTTAATTTATAAATATTGTTTTTTTGTTTGATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rrragriringigaagirraarrgacrrarrara---raaarrrrrrrrrcarar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1333 TGATGTGTGTGTAGGCAGGACCTGTGGCCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG
                           691 irreageacarcardorregecriarecraecragnarierearecrerecraride
                                                                                                                                    721 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCCTGCCCATATTATGTGGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Lee, James
APPLICANT: Lee, James
APPLICANT: Jin Kim, K.
TITLE OF INVENTION: Antibodies to Human PF4A Receptors
NUMBER OF SQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1445 GCTAGAAATGATCCCCAGCTGTTAATGCATA 1475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Sequence 3, Application US/08076093A; Patent No. 5543503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 5
US-08-076-093A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1201
                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1277
601
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                  à
                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                           ò
```

```
120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CICCIGACTATACCIGACTICAICTITGCCGACGICAGCCAGGGGGGACATCAGTCAGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   466 Arccrescerrearcagneresacescrassecarescereseceaesecaeses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 226 recarcarcritaloridecarreregecalegaria en recarceregereares
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CICITIGECALCACGCTICCCTICTGGGCAGTIGATGCCGTGGCAAACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ----TCAGTGAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                106 ATATACACTICAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              166 gaacccrgrirccgrgaagaaaraccraarricaaraaaarcrirccrgcccaccarcrac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  406 Aactrecrargeaaggeagrecargicarcracacacreaactereracaggeagrecre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGCCAAGGAAACTGCTGGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301 AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 933.4; DB 1; Length:
Pred. No. 1e-210;
0; Mismatches 216; Indels
                  MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
CURENT APPLICATION DATA:
APPLICATION NUMBER: US/08/076,093A
FILING DATE: 11-Jun-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCTGACTATTCCCGACTTCATCTTTGCCAACG-
                                                                                                                                                                                FILING DATE:

CLASSIFICATION: 530

PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/810782

FILING DATE: 19-DEC-1991

PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/677211

FILING DATE: 29-MAR-1991

ATTORNEY/AGENT INFORMATION:
NAME: Love, Richard B
REGISTRATION NUMBER: 34,659

REFERENCE/DOCKET NUMBER: 706F2

TELECOMMUNICATION INFORMATION:
TELEPAN: 415/25-5530

TELEPAN: 910/371-7168

INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 nucleocides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     55.1%;
81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 81.8
Matches 1154; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: Nucleic Acid
STRANDEDNESS: Single
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: Linear
```

īŲ

180

floppy

φ

```
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTR: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb flopp)
COMPUTER: BRPC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/701,265
FILING DATE: 12-AUG-1996
CLASSIFICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/810782
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/677211
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/677211
FILING DATE: 19-DEC-1991
FILING DATE: 15-DEC-1991
FILING DATE: 15-DEC-1991
ATTORNEY AGENT INFORMATION:
NAME: LOVE, RICHART B
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 706P2
TELEPHONE: 415/25-5530
TELEPHONE: 415/25-5530
TELEPHONE: 415/25-5530
TELEPHONE: 415/25-5530
TELEPHONE: 415/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
TELEPHONE: A15/25-5530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGGGGACACTCTTCCGTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1051 AGCAGAGGGTCCAGCCTCAAGATCTCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTT 1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                           810
                                                                                                                                                                                                                                                                                                                                  870
                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                          99
                                                                                                                                                   750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                            930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   990
                                                                                                                                                                                             ATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG
                                    811 ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                           ATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTTGAGAAACACTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       931 CACAAGTGGATTTCCATCACCAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081 AATATATATATATATATGATAAAGAACTTTTTATGTTACACATTTTCAGATATAAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1277 İTTAĞITİTİĞIĞAAĞITTAATIĞACTTATTATA----TAAATITTITTIĞITTCATAT
                GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAA
                                                                                                                                                                                                                                        ATTATCATCTCCAAGCTGTCACACTCCAAGGCCCACAGAAGCGCAAAGGCCCTCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1163 GACTTTTTTTTTTATACGATAAATAACTTTTTTTAAGTTACACATTTTTCAGATATAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTIGACCAGICTIGIACAGITTTTTTTTTTTTTTTTAATTGACTGTTGGGAGITTATGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Acreaceararicracacrimmariscrimenresammricr - - - - - - cristering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1333 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACTGTAGAACTGTAGAAGAAGTGAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1393 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGGGTGTAGTGAATCACGTAAA
                                                                                                        TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTGTTACTGC
                                                                                                                                     TITCAGCACAICAIGGTIGGCCITAICCIGCTIGGTAITGICAICCIGTCTICTGCTATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTAGAAATGATCCCCAGCTGTTTATGCATA 1475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1223
                                                            631
                                                                                                     109
                                                                                                                                                 691
                                                                                                                                                                                               661
                                                                                                                                                                                                                                        751
                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                         871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                              g
                                                                                                \delta
                                                                                                                                       셤
                                                                                                                                                                                             à
                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 6
```

```
ŝ
                                                                                                                                   165
                                                                                                                                                                    120
                                                                                                                                                                                                      225
                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                       285
                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                        345
                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                         405
                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361 ATCCIGGCCITCAICAGCCICGACCGGTACCICGCCAITGICCACGCCACCACAGACAGTCAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            465
                                                                                                                                                                                                                                                                                                                                                                                                CICITIGECALCACGCITCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              106 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG
                                                                                                                                                                                                                                      121 TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGCCAAGGAAACTGCTGGAGAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC
                                                                                                   1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                    61 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                           166 GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                            cadaadaaachdadaadcardacdacaachacaddcrdccaccrdrcadaddccrc
                                                                                                                                                                                                                                                                                                                                                                          CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                           301 AAATTTTTGTGTAAGGCTGTCCATATCATCTACACGTCTAACCTCTACAGCAGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                    Gaps
                                                                  41;
                                  Length 1737;
                                                                  Indels
                                Query Match 55.1%; Score 933.4; DB 1; Best Local Similarity 81.8%; Pred. No. 1e-210; Matches 1154; Conservative 0; Mismatches 216;
US-08-701-265-3
                                                                                                                                                                                                                                                                                                                                          286
                                                                                                                                                                                                                                                                                                                                                                                                            346
                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           쉱
```

APPLICANT: Chuntharapai, Anan
APPLICANT: Lee, James
APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: Jin Kim, K.
TITLE OF INVENTION: Antibodies to Human PF4A Receptors
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:

RESULT 6
US-08-701-265-3
Sequence 3, Application US/08701265
Patent No. 5776457
GENERAL INFORMATION:

```
1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGGGGACACTCTTCCGTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCAGAGGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTT 1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1111 recacreacitationa representation of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1081 AATATATATATATATATAAAGAACTTTTTTTTTTTGTTACACATTTTCCAGATATAAGAG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rriagiririridigaagiriraarigacirarirara---raaaririririridiricarar 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1333 rgargrererekédekédekédechérédekétrerrakirrekérrekérkererenaké 1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACTGTAGAACTGTAGAGGAAGAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTAGITITIGIGAGGITTGACTTAATTTATATAAATATTGITTTTTTGTTTGTTTCATGT 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1393 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA 1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                               9
                                                                                                                                                                                                                                            690
                                                                                                                                                                                                                                                                                                        999
                                                                                                                                                                                                                                                                                                                                                           750
                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              871 ATCGACTCCTTCATCCTCCGGAAATCATCAAGCAAGGGTGTGGGGTTTGAGAACACTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCTATGCCTTCCTCGGGGCCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CICTATGCTITCCTTGGAGCCAAATTTAAAACCTCTGCCCAGGACGCACTCACCTCTGTG
526 AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTC
                                                                                         541 GATGACAGGTACATCTGTGACCGCCTTTACCCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                                                                                                                                                                                                  ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCCATATTATGTGGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cacaactedarriccarcaccaageceracerricriccaergricricaaaeeeere
                                                            TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                        691 Trrcadcacarcarderredectrarecreecregrarrerearcererecrerarie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1277
                                                                                                                                                                                                                                                                                                                                                                                                                           199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ર્જ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8
                                                                                                                         셤
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ठ
                                                                   ò
                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                        음
                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

Sequence 3, Application US/08284586; Patent No. 5840855; GENERAL INFORMATION: APPLICANT: Chuntharapai, Anan

RESULT 7 US-08-284-586-3

```
.,
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          166 GAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            106 ATATACACTTCAGATAACTACACCGAGGAATGGGCTCAGGGGACTATGACTCCATGAAG 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           346 ciciridatearcacerrecerresedadirearecereseaaacresiatrides 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGGTTCTC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       226 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCTTTGTCATCACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 ATATACACTICIGALAACTACTCIGAAGAAGIGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1737;
APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: Jin Kim, K.
TITLE OF INVENTION: Antibodies to Human PF4A Receptors
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESSES: ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 933.4; DB 2;
Pred. No. 1e-210;
0; Mismatches 216;
                                                                                                                                                                                               COUNTRY: USA.

ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC comparatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinParin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION WINBER: US/08/284,586
FILING DATE:
CLASSIFICATION DATA:
APPLICATION NUMBER: US/08/076,093A
PILING DATE: 11-Um-1993
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
RIOR APPLICATION DATA:
APPLICATION NUMBER: 07/67211
FILING DATE: 19-DEC-1991
RIOR APPLICATION NUMBER: 34,659
FILING DATE: 19-DEC-1991
RATORNEY/AGENT INFORMATION:
NAME: LOVE, Richard B
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 706P2
TELECOMMUNICATION INFORMATION:
TELEPRONE: 415/225-5530
TELEPRONE: 415/225-5530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 55.1%;
Best Local Similarity 81.8%;
Matches 1154; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 nucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: Nucleic Acid
STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TOPOLOGY: Linear
US-08-284-586-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

g ò g 8 q 8 g d à d ઠે 셤 ð B à g ò 엄 à d 6 ద 8 셤 8 엄  $\dot{\varsigma}$ 원 ò g ò d ò

ò

```
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1261 GAATGAGGGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
420
                                                                   480
                                                                                                    585
                                                                                                                                        540
                                                                                                                                                                         630
                                                                                                                                                                                                         009
                                                                                                                                                                                                                                              690
                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                               750
                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                    810
                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                       870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                990
                                                                                                                                                          751 ATTATCATCTCCAAGCTGTCACACTCCCAAGGCCCACCAGAAGCCCAAGGCCCTCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1051 AGCAGAGGGTCCAGCCTCAAGATCCTCCAAAGGAAAGCGAGGTGGACATFCATCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1111 TCCACTGAGTCTGAGGTCTTCAGTTTTCACTCCAGCTAA------CACAGATGTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAG
                                                                                           TTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGC
                                                                                                                                                                                                                                                                                                                                                   ATCATCATCTTAAGCTGTCACACTCCAAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                       811 ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGGATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACAAGTGGATCTCCATCACAGGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1081 AATATATATATATATATAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Acreaccanariciacacriririariscrireriscaririris. - - - - - - crisisirir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1277 Triagriringraagriraarigacriarriaa.---raaaririringriricarar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1333 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTGGGAGGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1393 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA
ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                    AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                         GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTCAA
                                                                                                                                                                                                                                                                              TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                      :163 GACTITITITATACGATAAATAACTITITITIAGTTACACATTITICAGATATAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       scradaaardarcccadcrdrrrargcara 1475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1445
361
                                   995
                                                                 421
                                                                                                                                                                       586
                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                               691
                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                      481
                                                                                                                                                                                                                                              631
                                                                                                                                                                                                                                                                              601
```

165 120 285 345 225 180 240 CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 300 09 1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG 106 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG GAACCCTGCTTCCGGGATGAAAACGTCCATTCAATAGGATCTTCCTGCCCACCATCTAC GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC TICATCATCITCITGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC Length 1737, Indels Sequence 3, Application US/08805478
; Sequence 3, Application US/08805478
; Patent No. 5874543
; GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: Jin Kim, K.
TITLE OF INVENTION: ANTIBODIES TO PF4A RECEPTOR
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California COUNTRY: USER

ZIP: 94080

COMPUTER READALE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBW PC compatible
OPERATING SYSTEM: Compatible
OPERATING SYSTEM: Genentech)
SOFTWARE: Winder: US/OS/MS-DOS
SOFTWARE: Winder: US/OS/805,478
FILING DATE: 25-Feb-1997
FILING DATE: 25-Feb-1997
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA: APPLICATION DATA: APPLICATION NUMBER: 08/076093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION NUMBER: 08/076093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION NUMBER: 07/81078
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, Richard B.
REGISTRATION NUMBER: 34,659
REPREBRICK/DOCKT NUMBER: PO70602201C1
TELEPHONE: 415/225-5530
TELEPROMINICATION INFORMATION:
TELEPHONE: 415/525-9881 Query Match 55.1%; Score 933.4; DB 2; Best Local Similarity 81.8%; Pred. No. 1e-210; Matches 1154; Conservative 0; Mismatches 216; TYPE: Nucleic Acid

TYPE: Nucleic Acid

STRANDEDNESS: Single

TOPOLOGY: Linear
US-08-805-478-3 TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS: 61 166 121 226 181 286 241 ò

ŝ

226 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGAATTGGTCATCCTGGTCATGGGTTAC 285 g 5 셤 ò ઠે ઠે g 1200 1261 GAATGAGCGTCTAGGCACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAG 1320 GACTGTAGAACTGTAGAGGAAGAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020 TCCACGGAGTCCAGATTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080 1081 AATATATATATATATGATAAAGAACTTTTTATGTTACACATTTTCCAGATATAAGAG 1140 1163 GÀCTTTTTTÀTÀCGATÀAÀTÀACTTTTTTTTTAGTTACACATTTTCAGATATAAAAG 1222 1223 ACTGACCAATATTGTACAGTTTTTATTGCTTGTTGGATTTTTGT-----CTTGTGTTTT 1276 TCTAGITITIGIGAGGITIGACTIAATITATATAAATATGITITITITIGITIGATGT 1260 840 930 841 CACAAGTGGATCTCCATCACAGAGGCCTCGCCTTCTCCACTGTTGCCTGAACCCCATC 900 931 CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC 990 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCCATG 960 540 9 750 720 780 870 360 465 525 480 585 586 checheachairceceachtearchrisceaace-----readagaeaa 630 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA 600 690 781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGGATGTGACTTCGAGAGTTGTG CICTITGECATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAACTGGTACTTTGGG 466 ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACCACCAACAGTCAG Trocageararaargeregererecteecegecarcerecterecter 421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC 661 ATCATCATCTTTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 106 961 1021 1201 1321 691 601 361 526 481 541 631 ∂ g 상 임 δ g ò 셤 8 8 8 8 8 셤 g g ò Dp g à g g  $\delta$ ઠે ò 8 6 8 8 8 D D 8 ద ð

----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA 1444 61 GAACCCTGCTTCCGGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120 121 TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180 165 166 GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC 225 106 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG 1 ATATACACTICIGATAACTACTCTGAAGAGTGGGGTCTGGAGACTATGACTCCAACAAG 41; Sequence 3, Application US/08802627A

Sequence 3, Application US/08802627A

Sequence 3, Application US/08802627A

Sequence 1, Application US/08802627A

GENERAL INFORMATION:

APPLICANT: Wood, William I.

ITILE OF INWENTION: UNCLEIC ACID ENCODING PF4A RECEPTOR

NUMBER OF SEQUENCES:

CORRESPEN: Generated, Inc.

STRYE: Galfornia

CONTRY: Galfornia

CONTRY: California

CONTRY: Stry: USA

CONTRY: Stry: USA

CONTRY: STRY: Stry: USA

CONTRY: STRY: STRY: USA

CONTRY: STRY: STRY: USA

CONTRY: THE READALE FORM:

MEDIUM TYPER ASA

CONTRY: THE READALE FORM:

MEDIUM TYPER S. 3.5 inch, 1.44 Mb floppy disk

CONTRY: THE READALE FORM:

MEDIUM TYPER 3.5 inch, 1.44 Mb floppy disk

CONTRY: THE STRY: USA

CONTRY: THE STRY: USA

CONTRY: THE STRY: USA

CONTRY: THE STRY: USA

CONTRY: THE STRY: USA

CONTRY: THE STRY: USA

CONTRY: THE STRY: USA

SETION NUMBER: OF STRY:

APPLICATION NUMBER: OF STRY:

APPLICATION NUMBER: OF STRY:

APPLICATION NUMBER: OF STRY:

APPLICATION NUMBER: OF STRY:

APPLICATION NUMBER: OF STRY:

APPLICATION NUMBER: OF STRY:

APPLICATION NUMBER: OF STRY:

TELEPRONE: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5530

TELEFROM: 415/255-5 Length 1737; Indels Query Match 55.1%; Score 933.4; DB 2; Best Local Similarity 81.8%; Pred. No. 1e-210; Matches 1154; Conservative 0; Mismatches 216; 1445 GCTAGAAATGATCCCCAGCTGTTTATGCATA 1475 1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411 1393 GACTGTAGAA-셤

```
1333 TGATGTGTCTCAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTTATGTCTCGTGGTAG 1392
                                                                 1393 cacreradas-----aagesaacreaacarrecagagesigracreaares
                                         GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA
                                                                                                           1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                          RESULT 10
US-08-801-238-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       166
                                         1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ठे व
                                                               g
                 g
                                       ò
                                                                                          \delta
                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTTAATTGACTGTTGGAGTTTATGTTCC 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1111 recaergagrereagrerreagrirreacreeageraa-----eacagargraaa 1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1201 TCTAGTTTTTGTGAGGTTTGACTTAATTTATATAAATATTGTTTTTTTGTTTTGTTTCATGT 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1277 TTTAGTTTTTGTGAAGTTTAATTGACTTATTTATA----TAAATTTTTTTTTGTTTCATAT 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCAGAGGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTT 1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCCATC 990
                             345
                                                                                                          360
                                                                                                                                                                                        525
                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                           585
                                                                                                                                                                                                                                                                                                630
                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                              099
                                                                                                                                                                                                                                                                                                                                                                                                                               ATCATCATCTTTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                            810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Arceacrectrearecresaaareareaasaaseaasearereastreastreasaacaerere 930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACAAGTGGATCTCCATCACAGAGGCCCTTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CICIAIGCCIICCICGGGGCCAAGIICAAAAGCICIGCCCAGCAIGCACICAACICCAIG 960
                                                       300
                                                                               405
                                                                                                                                  465
                                                                                                                                                             420
                                                                                                                                                                                                                                                                      rrrcagcacarcargerregecrrarecreceregrarerearcrerecrecraree
               286 CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC
                                                                                                                                                                              466 ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCACAGTCAG
                                                                                                                                                                                                                                     GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTCAA
                                                        CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                        346 CTCTTTGTCATCACCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG
                                                                                                         301 AAATTITIGIGIAAAGGCIGICCATAICAICTACACTGICAACCICTACAGCAGCGITCIC
                                                                                                                                    406 Aacricciariscaasscasiccarsicarciacacastcaaccicracascarciacasscric
                                                                                                                                                              361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                   AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                               TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTCCTGTTACTGC
                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1163
                                                                                                                                                                                                                                                                                                                                                    631
                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                          751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                       241
                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                       691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5 B 5 B 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                            셤
                                                                                                         à
                                                                                                                              g
                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                 合
                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                       ò
                                                                           Б
                                                                                                                                                      ò
                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                   \dot{\circ}
                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                  \dot{\delta}
```

```
120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   106 araracacricadaraacracaccaadaaardddcricaddddarridacricardaad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
55.1%; Score 933.4; DB 2; Length 1'
Best Local Similarity 81.8%; Pred. No. 1e-210;
Matches 1154; Conservative 0; Mismatches 216; Indels
US-US-US-LAID.

US-US-BUIL-48-3

Sequence 3, Application US/08801238

Patent No. 591986

GENERAL INFORMATION:

TITLE OF INVENTION:

NUMBER OF SECUENCES:

CORRESPONDENCE ADDRESS:

ADDRESSEE: Generatech, Inc.

STREE: 460 Point San Brunc Blvd

CITY: South San Francisco

STATE: California

COMPUTER READABLE FORM:

MEDIUM TYPE: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 18M FC comparatible

COMPUTER: 19M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparatible

COMPUTER: 10M FC comparati
```

us-09-367-052-7.rni

2.4

Oy 1 ATATACACTTCTGATAACTACTCTGAAGAAGT		
Query Match 55.1%; Score 933.4; Best Local Similarity 81.8%; Pred. No. 1e Matches 1154; Conservative 0; Mismatche		8 6
ĺ	1081 AATATATATATATATGATAAAGAACTTTTTATGTTACACATTTTCCAGATATAAGAG 1140 	<b>상</b> 원
. H	1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080	ර් යි
; TELEPHONE: 415/225-5530 ; TELEFAX: 415/952-9881 ; TELEX: 910/371-7168 ; INFORMATION FOR SEQ ID NO: 3:	961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGGTGGACCTCTTCCGTC 1020 	& a
TRATION ENCE/DC MUNICAT	CICIATGCTTTCCTTGGAGCCAAATTTAAAACCTCTGCCCAGCACGCAC	do G
FILING DATE: 19-DEC-1991 ATTORNEY/AGENT INFORMATION: NAME: LOVE, Richard B.	931 CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC 990 901 CTCTATGCCTTCCTCGGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960	a ò
PRIOR APPLICATION DATA:  APPLICATION NUMBER: 07/810782	CACACAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC	ે ં
; PRIOR APPLICATION DATA: ; APPLICATION NUMBER: 08/076093 ; BTITMS DATE: 11ITM 1993		; <u>4</u> 2
APPLICATION NUMBER: 08/284586	ATCSACTCCTTCATCCTTTTGGGAGTCATCAAGGAAGGAAGGATGTGGACTTCGAGAGCATTGTG	8 8
	721 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCTGCCATATTATGTGGGGATCAGC 780 811 ACAGTCATCCTAGCTTTTTTTTTTTTTTTTTTTTTTTTT	6 G
SOFTWARE: WinPatin (Genentech) CURRENT APPLICATION DATA: APPLICATION NIMBER: 118/08/801.228		7 A
### MEDIUM TYPE: 3.5 inch, 1.44 MD iloppy  ### Comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the comparisor over the	691 TITCAGGACAICAIGGIIGGCCITAICCIGGIAITGICAICAIGGAITGICAICCIGGAACAIGGC 750	a i
USA 180 SADABLE FORM:	601 ITCCAGCAIATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC 660	Š
STREET: 460 Point San Bruno Blvd (ITY: South San Francisco ) STRATE: California	541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTCAA 600 	da P
TITLE OF INVENTION: PF4A RECEPTOR NUCLEI NUMBER OF SEQUENCES: 6 CORRESPONDENCE ADDRESS: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 NUMBER OF SEQUENCES: 6 N	481 CTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGGGGGGACATCAGTCAG	AQ Q
GENERAL INFORMATION:  APPLICANT: Lee, James  APPLICANT: Nood, William I.  ATOM TOTAL OF INTERNATION:  ATOM TOTAL OF INTERNATION:	421 AGGCCAAGGAAACTGCTGGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC 480 	ර් සි
RESULT 11 US-08-801-228-3 ; Sequence 3, Application US/08801228 . Detent M3, 6022841	361 AICCIGGCCIICAICAGCCIGGACCGGTACCICGCCAITGICCAGGCAACAGTGAA 420	yo, Db
Db 1445 GCTAGAAATGATCCCCAGCTGTTTATGCATA	301 AAAITITIGIGIAAGGIGICCAIAICAICIACAGCIGICAACCICIACAGCAGCGITCIC 360 	P Q
1393	241 CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 300	oy.
1333	181 CAGAAGAAGCTAAGGAGCATGACGACAAGTACCGGCTGCACTGTCAGTGGCTGACTC 240 	상 원
1277 TTTAGTGAAGTTTAATTGACTTATT	121 TTCATCATCTTTGACTGGCATAGTCGGCAATGGGTTTGGTGATCCTGGTCATGGGTTAC 180 226 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCGTCATGGGTTAC 285	P Q

```
); DB 2; Length 1737;
te-210;
nes 216; Indels 41; Gaps 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGGGTCTGGAGACTATGACTCCAACAAG 60
                                                                                                                                                 ION AND AMPLIFICATION OF SIC ACID
                                                                       A 1411
                                                                                   A 1475
                                                                                                                                                                                                                   disk
 ઠે
```

1163 GACTTTTTTTATACGATAATAACTTTTTTTTTTTTTTTT	Db 1393 [A	APPLICANT: Lee, James APPLICANT: Lee, James APPLICANT: Wood, William I. TITLE OF INVENTION: PF4A Receptors NUMBER OF SEQUENCES: CORRESPONDENCE ADDRESS: ADDRESSEE: Genetech, Inc. STREET: I DNA May CITY: South San Francisco STATE: California	TE AND SECOND		REGISTRATION NUMBER: 34,659 REGISTRATION NUMBER: P0706P20 RELECOMMUNICATION INFORMATION: TELEPHONE: 415/225-5530 TELEFAX: 415/922-9881 TELEX: 910/371-168 INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: LENGTH: 1737 base pairs TYPE: Nucleic Acid STRANDEDNESS: Single
ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAGGGAAATGGGCTCAGGGGAACTATGACTCCATGAGGGAAATGGGCTCAGGGGAACTATGACTCCATGAGGGAAATGGCTCAGGGGAACTATGACTCCATGATGGATG	CICTTTGTCATCACACTCCCCTTCTGGGCAGTTCATGCCATGGCTGACTGGTACTTTGGG  [	# SOCCHAGGAMACICS CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONT	601 TTCCAGCATATAATGGTGGGTCTCATCCTGCCGGCATCGTCATCCTCTTTACTGC 660 691 TTCAGCACATCATGGTTGCCTTATCCTGCTGTGTCTTGCTGTTATTGCTATTGC 750 661 ATCATCATCTTAAGCTTATCCTGCCTGGTATTGC 750 661 ATCATCATCTCTAAGCTTATCCTCCAGGGCCACCAGAAGCCCTCAAGAGG 720 751 ATTATCATCTCCAAGCTGTCACACTCCAAGAGGCCAAGAGCCCTCAAGAGG 720 721 ACAGTCATCCTCATCCTAGCTTTTTCTTTGCTGGCTGCCATATTATGTGGGGATCAGC 810 721 ACAGTCATCCTCATCCTAGCTTTTTTTTTTTTTTTTTTT	781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGGAAGGATGGACTTCGAGAGCATTGTG 840 871 ATCGACTCCTTCATCCTCTGGAAATCATCAAGGAAGGGTGTGAGTTTGAGAACACTGTG 930 841 CACAAGTGGATCTCCATCACAGAACTCTCTTCCACTGTTGCCTGAACCCCATC 900 931 CACAAGTGGATTTCCATCACAGGGCCCTGGCTTTCTTCCACTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGT	AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAGGAAAGGGGGTGGACACTCTTCCGTC  AGCAGAGGGTCCAGCCTCAAGATCCTTCCCAAGGAAAGCGGGGTGGACATTCATCTTT  TCCACGGAGGTCAGAATCCTCCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGATTCATCTGTT  TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTTATGCAAAGACTTATAT
8 6 8 6 8 6 8	3 8 4 8 6 8 6	6 6 6 6 6	8 6 8 6 8 6	3 6 8 6 8 6	8 8 8 8 8 8 8 8

```
TTTTTTTTAATTGACTGTTGGGGGTTTATGTTC 1200
                                                  ATTTATATAAATATTGTTTGTTTGTTTCATGT 1260
                                                                                     GGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 1320
                                                                                                                      TTTTTTTAAGTTACACATTTTTCAGATATAAAAG 1222
                                                                                                                                                          CTGCATA 1411
||||||
ATGCATA 1475
                                                                                                                                                                                                                                                                                                                                                         floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2C2
                                                                                                                                                                                                                                                                                                                                                                                                     96
```

Page 13

COUNTRY: USA

ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/06380
FILING DATE:
CLASSIFICATION: 08/076093
ATTORNEY/AGENT INFORMATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/076093
ATTORNEY/AGENT INFORMATION:
REGISTRALOW NUMBER: 706P2P1
TELECOMMUNICATION NUMBER: 706P2P1
TELECOMMUNICATION NUMBER: 706P2P1
TELECOMMUNICATION NUMBER: 706P2P1
TELEPHONE: 415/25-530
TELEPHONE: 415/25-530
TELEPHONE: 415/25-530
TELEPHONE: 415/25-530
TELEPHONE: A15/35-9881
INFORMATION POR SEG ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 bases
TYPE: nucleic acid 1223 1201 1021 g g ò 셤 ò a  $\dot{\delta}$ g ò ò g ò ò 870 990 CACAAGTGGATCTCCATCACAGGGCCCTCGTTCTTCCACTGTTGCCTGAACCCCATC 900 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960 810 780 840 CTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGGGGGGGACATCAGGGG 540 GALGACAGGIACATCIGIGACCGCCITIACCCCGAIAGCCIGIGGAIGGIGITITCAA 600 9 750 661 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGGGCAAAGGCCCTCAAGACG 720 301 AAATITITGGGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCGCGCGTTCTC 360 480 585 630 240 300 405 465 420 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120 166 GAACCCTGTTTCCGTGAAGAAAAGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC 225 180 226 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC 285 CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC 691 TITCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGC 721 ACAGICAICCICAICCIAGCITITCITITGCCIGGCIGCCATATIAIGIGGGGAICAGC 781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 601 TICCAGCATATAATGGICGGICTCAICCTGCCCGGCATCGTCATCCTCTCTGCTGTTACTGC 121 TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 181 CAGAAGAAGCTAAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC CTCTTTGTCATCACACTCCCCTTCTGGGCCAGTTGATGCCATGGCTGACTGGTACTTTGGG 346 CTCTTGTCATCAGGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAACTGGTAGGTTGGG 361 ATCCTGGCCTTCATCAGCCTGGACGGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCTTC 1 ATATACACTICTGAIAACTACTCTGAAGAAGTGGGGGTCTGGAAGACTATGACTCCAACAAG Gapa 41; Length 1737; Query Match
Best Local Similarity 81.8%; Pred. No. 1e-210;
Matches 1154; Conservative 0; Mismatches 216; Indels Linear ; US-09-104-296-3 841 931 901 991 961 466 181 586 541 531 241 61 g 8 g ò g В 음 ð 임 à ઠે

Š a

ö 음 ò g ò 셤

Sp

ò g ò g Š 셤 8 g ò

ठे

PCT-US94-06380-2
; Sequence 2, Application PC/TUS9406380
; GENERAL INFORMATION:
 APPLICANT: Chuntharapai, Anan
 APPLICANT: Lee, James
 APPLICANT: Hebert, Caroline
 APPLICANT: K. Jin Kim
 APPLICANT: METHODS FOR TREATING INFLAMMATORY DISROBERS
 TITLE OF INVENTION: METHODS FOR TREATING INFLAMMATORY DISROBERS
 NUMBER OF SEQUENCES: 3
 CORRESPENDENCE ADDRESS:
 ADDRESSES: Genentech, Inc.
 STREET: 460 Point San Bruno Blvd
 CITY: South San Francisco
 STATE: California
 CONTRY: USA

AGCAGAGGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGGAGGGGGGGCATCATCATCTGTT FILING DATE: 1051 1321 1021 1201 1381 ð ò g a 임 ò 셤  $\stackrel{>}{\circ}$ 음 ద ò ò ð 셤 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020 ŝ 345 360 480 099 240 540 750 780 ATCGACTCCTTCATCCTCCTGGAAATCATCAAGGAAGGGTGTGAGTTTGAGAAACATGTG 930 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960 165 120 225 180 285 300 405 465 525 585 009 069 661 ATCATCATCTCAAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGCCTCAAAGACG 720 781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGGAAGGATGTGACTTCGAGAGCATTGTG 840 CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 900 cacaagregarrrccarcaccaageccragerrrcrrccacrerrerrareadecccare 990 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCAACAGTCAA 420 crecreacrarreceaerrearcrireceaeca-----reagradesea 630 CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 121 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTC GATGACAGGTACATCTGTGACCGCCTTTACCCCCGATAGCCTGTGGATGGTGGTGTTTCAA Trecadeararangeregererearecreecedecarecreererererer TTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGC 106 ATATACACTICAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG 166 GAACCCTGTTTCCGTGAAAAATGCTAATTTCAATAAATCTTCCTGCCCACCATCTAC 121 TICATCATCITCITGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 286 chgahgahacrgahgcargacgacahgracaggcrgcaccrgrcagrgccgaccrc 346 CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG AAATTTTTGTGTAAGGCTGTCCATATCAACTGTCAACCTCTACAGCAGCGTTCTC ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGGCTGCCATATTATGTGGGGATCAGC 1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC AACTICCIAIGCAAGGCAGICCAIGICAICIACACAGICAACCICIACAGCAGIGICCIC Gaps 41; Length 1737; Indels Query Match 55.1%; Score 933.4; DB 5; Best Local Similarity 81.8%; Pred. No. 1e-210; Matches 1154; Conservative 0; Mismatches 216; ; STRANDEDNESS: single; TOPOLOGY: linear PCT-US94-06380-2 226 181 241 301 406 361 466 526 481 586 541 531 601 691 721 871 841 331 901 991 61 qq a 8 8 8 8 8 8 ద ò 셤 ò g 8 g ò ద ò d  $\delta$ ઠે 8 g  $\delta$ g Ś g 8

```
1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1320
                                                                                                                                                                                                                                                           1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1392
1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1393 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA 1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1223 ACTGACCAATATTGTACAGTTTTTATTGCTTGTTGGATTTTTGT-----CTTGTGTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1277 Triagritingigaagritaarigacharrrara----raaairrritigiticatar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261 GAATGAGCGTCTAGGCAGCACCTGTGGCCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG
                                                                                   TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT
                                                                                                                                                1111 TCCACTGAGTCTGAGTCTTCAAGTTTTCACTCCAGCTAA-----CACAGATGTAAAA
                                                                                                                                                                                                                                                               1081 AATATATATATATATATATAAAGAACTTTTTATGTTACACATTTTCCAGATATAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                       1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTAGTTTTTTGTGAGGTTTGACTTAATTTATAAATATTGTTTTTTTGTTTTGTTTCATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACTGTAGAACTGTAGAAGAAGAACTGAACATTCCAGAATGTGTGTAAATTGAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
US-09-016-434-1235
i Sequence 1235. Application US/09016434
j Sequence 1235. Application US/09016434
j Sequence 1235. Application US/09016434
j Sequence 1235. Application US/09016434
j Sequence 1235. Application US/09016434
j GENERAL INFORMATION:
APPLICANT: Jance Au-Young
APPLICANT: Jeffrey J. Seilhamer
ITILE OF INVENTION: PATHWAY GENE EXPRESSION
ITILE OF INVENTION: PATHWAY GENE EXPRESSION
ITILE OF INVENTION: PATHWAY GENE EXPRESSION
INVERSE OF SEQUENCES: 1490
CORRESPONDENCE ADDRESS:
APPRESSION ALTO
STATE: CALIFORNIA
COUNTRY: USA
ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: FIDOPY disk
COMPUTER: Nord Perfect 6.1 for Windows/MS-DOS 6.2
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS SOFTWARE:
CURRENT APPLICATION DATE:
FILING DATE: HEREWITH
CLASSIFICATION:
FRIGHT APPLICATION DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE:
FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIPETATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-0002 US
TELEPHONE: (650) 845-0555
TELEPHONE: (650) 845-4166
INFORMATION FOR SEQ ID NO: 1235:
SEQUENCE CHARACTERISTICS:
LENGTH: 1225 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ΩS
```

셤 ö d 8 임 à d ò g à 540 840 2 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960 900 999 720 780 746 ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACATGGGATCAGC 805 865 CACAAGIGGAICTCCATCACAGAGCCCTCGCCTTCTTCCACIGTIGCCTGAACCCCATC 900 CACAAGIGGATITCCATCACCGAGGCCCTAGCTITCTTCCACTGTTGTCTGAACCCCATC 925 AAATTITIGIGIAAGGCIGICCATAICAICIACACTGICAACCICTACAGCAGCGITCIC 360 400 361 ATCCTGGCCTTCATCAGCCTGGACGGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420 480 520 565 625 685 686 ATTATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACC 745 160 121 TICATCATCITCITGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180 TCCATCTTCTTTAACTGGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGTTAC 220 240 61 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120 CICITIGICAICACACICCCCITCIGGGCAGIIGAIGCCAIGGCIGACIGGIACTIIGGG 300 ses carcacacarararcrercaccecrrcraccccaarcacrrercacrecracac 661 ATCATCTCTAACCTGTCACACTCCCAAGGGCCACCAGAAGGCCCTCAAGACG ATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTG 541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGGATAGCCTGTGGATGGTGGTGTTTCAA 626 TITCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGC 721 ACAGICATCCTCATCCTAGCTTTCTTTGCCTGCTGCTGCCATATTAIGTGGGGAITCAGC ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCTC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 1 ATATACACTICTGATAACTACTCTGAAGAGTGGGGTCTGGAGACTATGACTCCAACAAG Gaps 22; Length 1225; Query Match 50.5%; Score 855.6; DB 4; Length Best Local Similarity 83.3%; Pred. No. 2e-192; Matches 1005; Conservative 0; Mismatches 179; Indels ; STRANDEDNESS: single ; TOPOLOGY: linear ; INMEDIATE SOURCE: ; LIBRARY: GENBANK ; CLONE: 9189313 US-09-016-434-1235 781 806 841 601 998 901 161 181 241 301 401 481 a 8 8 8 B 8 g පු ද ò 원 ò B ò g 상 점  $\delta$ a ઠે В ઠ 셤 ò ઠે 셤 8 8  $\dot{\delta}$ 

1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGAGTTTATGTTC 1200 986 AGCAGAGGGCCCCAAGATCCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTT 1045 1046 TCCACTGAGTCTGAGTCTTCAAGTTTTCACTCCAGCTAACACAGATGTAAA-----AG CTCIAIGCTITCCTTGGAGCCAAATTTAAAACCTCTGCCCAGCACGCACTCACCTCTGTG 1081 AATATATATATATATATATAAAGAACTTTTTATATGTTACACATTTTCCAGATATAAGAG 1099 ACTITITITIATACGATAAATAACTITITITITAAGTTACACATITITICAGATATAAAAG 961 AGCAGAGGCTCCAGCCTCAAGAICCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC US-08-153-848-45

US-08-153-848-45

US-08-153-848-45

Sequence 45, Application US/08153848

Patent No. 5759804

APPLICANT Gray Patrick End Gray Patrick End Gray Patrick Codicks Ronald APPLICANT: Gray Patrick I.

APPLICANT: Schwakart, Vicki L.

INTE OF INVENTION: No. 5759804el Seven Transmembrane Receptors NUMBER OF SEQUENCES: 64

CORRESPONDENCE ADDRESS:

ADDRESSES: Bicknell, O'Toole, Geretein, Murray & ADDRESSES: Bicknell, O'Toole, Geretein, Murray & ADDRESSES: Bicknell, O'Toole, Geretein, Murray & CITY: Chicago

CITY: Chicago

CITY: Chicago

COUNTRY: USA

MEDIUM TYPE: Floppy disk

COMPUTER READBLE FORM:

MEDIUM TYPE: Ploppy disk

COMPUTER: Bacentin Release #1.0, Version #1.25

COMPUTER: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

MEDIUM TYPE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION NUMBER: US/08/153,848

FILING DATE: 17-NOV-199

APPLICATION NUMBER: US 07/977,452

APPLICATION NUMBER: US 07/977,452

APPLICATION NUMBER: US 07/977,452

APPLICATION NUMBER: US 07/977,452

APPLICATION NUMBER: US 07/977,452

APPLICATION NUMBER: US 07/977,452

APPLICATION NUMBER: US 07/977,452

APPLICATION NUMBER: US 08 02

MATCORNET 1317 APPLICATION: 13174

TELEPRICE DOCKET NUMBER: 13194

TELEPRICE DOCKET NUMBER: 13194

TELEPRICE DOCKET NUMBER: 13194

TELEPRICE DOCKET NUMBER: 13194

TELEPRICE DOCKET NUMBER: 13194

TELEPRICE DOCKET NUMBER: 13194

TELEPRICE DOCKET NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICATION NUMBER: 1317 APPLICAT CDS 201..1211 1201 TCTAGT 1206 TTTTGT 1224 TOPOLOGY: lir MOLECULE TYPE: ; NAME/KEY: ; LOCATION: US-08-153-848-45 1219

	CATAGTCGGCAATGGATTGGTGATGGTTAC 180	CTTCTGGGCAGTTGATGCCATGACTGGTACTTTGGG 300	GGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420		CCGCCTTTACCCCGATAGCCTGTGGATGTTTCAA 600	### ##################################	GGGAGTCATCAAGGAAGGAGTTGGAGAGCATTGTG 840	CAAGITCAAAAGICTGCCCAGCATGCACTCCAIG 960	AACCCTTATGCAAAGACTTATAT 1080
Query Match  84.1%; Score 834; DB 1; Length 1317;  Best Local Similarity 84.1%; Pred. No. 2.5e-187;  Matches 974; Conservative 0; Mismatches 160; Indels 24; Gaps  1 ATATACACTTCTGATACTACTCTGAAGAATGGGCTCTGAGACTATGACTCCACACA  171 ATATACACTTCAGATAACTACACCAGGAAATGGGCTCAGGGGACTATGACTCCATGA  61 GAACCCTTCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATTAA  231 GAACCCTGTTTCGGTGAAAAAATGTCATATAGGATCTTCCTGCCCACCATTAA  231 GAACCCTGTTTCGGTGAAAAAATGCTAATTCAATAAAAATCTTCCTGCCCACCATCTAA	121 TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTG 291 TCCATCATCTTTAACTGGCATTGTGGGCAATGGATTGGTC 181 CAGAAGAAGCTAAGGAGCATGACGACAAGTACCGGCTGCAC 181 CAGAAGAAACTAAGGAGCATGACGACAAGTACCGGCTGCAC 351 CAGAAGAACTGAGAGAGCATGACGGACAAGTACAGGCTGCAC	241 CTCTTTGTCATCACTCCCCTTCTGGGCAGTTGATGCCATG 411 CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTG 301 AAATTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAC 471 AACTTCTATGCAAGGCTGTCCATGTCATCTACCACGTCAAC	361 ATCCTGGCCTTCATCAGCCTGGACGGGTACCTCGCCATTGTC	AGGCCAAGGAAGCTGTTGGC CTCCTGACTATACCTGACTT CTCCTGACTATACCTGACTT	541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTG	661 ATCATCATCTCTAAGCTGTCACACCCCAAGGGCCACCAGAAG		901 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAG	1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGGTAACCCTTATGGAAAGACTTATAT
Oue: Best Matri Oy Db Oy Db	Oy Oy Oy	& a & a	୪ ମ ୪	oy du	97 97 97 97	oy du oy	oy Oy Db	99 99 99 99 99 99 99 99 99 99 99 99 99	8

```
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                      OM nucleic - nucleic search, using sw model
```

May 17, 2004, 12:11:00 ; Search time 829.19 Seconds (without alignments) 9271.041 Million cell updates/sec Run on:

US-09-367-052-7 1694 1 atatacacttctgataacta.......taaaagtcaatgataaactt 1694 Title: Perfect score: Sequence:

IDENTITY\_NUC Gapop 10.0 , Gapext 1.0 Scoring table:

2947324 seqs, 2269024515 residues Searched: Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

Published Applications NA:\*

| cgn2\_6/ptodata/1/pubpna/USO7\_PUBCOMB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO7\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO6\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO6\_PUBGOMB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO6\_PUBGOMB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO8\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO8\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO8\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO8\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO8\_PUBCOMB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO8\_PUBCOMB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/USO9\_NEW PUB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Description		Sequence 1, Appli	Sequence 1213, Ap	Sequence 80, Appl	Sequence 9, Appli	Sequence 912, App	Seguence 14, Appl	Seguence 912, App	Sequence 332, App	Sequence 75, Appl	Sequence 58, Appl	Sequence 177, App	Sequence 20, Appl	Sequence 459, App	Sequence 3, Appli
Ę.		US-10-160-401-1	US-10-641-643-1213	US-10-211-462-80	US-10-181-906-9	US-10-342-887-912	US-10-151-274-14	US-10-172-118-912	US-10-170-385-332	US-10-225-567A-75	US-10-021-660-58	US-10-341-434-177	US-09-971-392-20	US-10-101-510-459	US-09-104-063-3
2	9 :	16	17	13	13	13	13	13	13	15	15	16	10	15	on
% Query Match Length DB		5161	1664	1679	1679	1679	1679	1679	1679	1679	1679	1679	1711	1711	1737
% Query	יים רכזו	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1
9	מנים בי	933.8	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4
Result	- INC - I	1	7	m	4	S	9	7	00	6	10	11	12	13	14

Sequence 3	2	D.	a .	1	equence 7	_	Ψ.	equence 8	equence 1	Φ	à.	٠.	•	ď		٠	~	٠.	495	2611,	2611	Sequence 2611, Ap	Seguence 2611	quence 8936,	equence 8936	equence 8936	equence 8936	162,	e 65,	Sequence 5, Appli
10-66	9-880-107-214	-902-096-60	10-372-683-1	7	-10-101-510-7	US-10-305-720-1235	-10-101-510-	αŋ	US-10-014-322A-125	0-160-401-2	870-759-1	-708A-	US-09-826-509-484	US-09-953-692-1	US-09-953-717-1	US-10-017-161-789	US-10-292-798-687	US-10-085-783A-14955	US-10-242-535A-14955	US-09-796-692-2611		US-10-057-475B-26	US-10-154-884B-2	w	US-10-040-862-893	us-	US-10-154-884B-893	US-09-997-722-16	US-10-251-385-6	US-09-104-063-5
13	σ		16	16	15	16	75	13	15	16	თ	10	11	σ	σ	15	16	13	<del>1</del> 6	σ	15	16	16	σ	15	16	16	12	15	σ
1737	1670	1670	1670	1670	1225	1225	1224	1059	1059	1059	1102	1102	1059	1902	1902	1076	1076	507	507	421	421	421	421	487	487	487	487	1119	1119	1679
55.1	55.0	55.0	55.0	55.0	50.5	50.5	49.8	47.6	47.6	47.6	47.5	47.5	47.3	32.7	32.7	31.3	31.3	20.4	20.4	17.9	17.9	17.9	17.9	16.9	16.9	16.9	16.9	11.7	11.7	11.7
933.4	931.4	931,4	931.4	931.4	855.6	855.6	843.6	806.2	806.2	806.2	804.6	804.6	801.4	553.6	553.6	530	530	345.2	345.2	303.2	303.2	303.2			287	287	287	86	198.4	8
15	16	17	18	119	20	21	22	23	24	25	26	27	28	29	30	31	32	. 60	, e.	. E	3	37	80			c 41			44	45

## AL IGNMENTS

```
TYPE: DNA
OKGANISM: Homo sapiens
PERATURE:
NAME/KEY: allele
LOCATION: (3118)...(3118)
OTHER INFORMATION: PS1: polymorphic base thymine or adenine
FEATURE:
NAME/KEY: allele
LOCATION: (3583)...(3583)
OTHER INFORMATION: PS2: polymorphic base cytosine or thymine
FEATURE:
NAME/KEY: allele
LOCATION: (3952)...(3952)
OTHER INFORMATION: PS3: polymorphic base cytosine or thymine
COCATION: (3952)...(3952)
OTHER INFORMATION: PS3: polymorphic base cytosine or thymine
US-10-160-401-1
; Sequence 1, Application US/10160401
; Publication No. US20030207281A1
GENERAL INFORMATION:
, APPLICANT: Genalssance Pharmaceuticals, Inc.
, APPLICANT: Bentivegna, Steven C.
, APPLICANT: Beglecki, Karyn M.
APPLICANT: Breglecki, Karyn M.
APPLICANT: Rounds, Elleen
, APPLICANT: Monroe, Glen
, APPLICANT: Rounds, Elleen
, APPLICANT: Monroe, Glen
, APPLICANT: Monroe, Glen
, TITLE OF INVENTION: HAPLOTYPES OF THE CXCR4 GENE
, TITLE PREBRUCE: WMH-012.US
, CURRENT APPLICATION NUMBER: PCT/US01/12268
, PRIOR PILING DATE: 2001-04-13
, PRIOR PLING DATE: 2000-04-13
, NUMBER OF SEQ ID NOS: 31
, SEQ ID NO |
, LENGTH: S161
, WUNDER: Patentin version 3.1
, SEQ ID NO |
, LENGTH: S161
```

셤 g 원 ò g 8 g à g  $\delta$ Š ò 셤 à g ò 원 3889 4009 4069 3544 3709 3769 3829 3949 5 3185 ATATACACTICAGATAACTACACGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG 3244 3304 3305 recarcarentarenadagearrenegeaaregarregreareterenegrearegerrae 3364 3425 CICITIGECAICACGCITCCCTTCTGGGCAGTTGAIGCCGTGGCAAACTGGTACTITGGG 3484 8605 AGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTC 3664 840 180 240 99 780 AAATTTTTGTGTAAGGCTGTCCATATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360 480 540 900 361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCACAGTCAA 420 121 TICATCATCTTGTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 3665 CTGCTGACTATTCCCGACTTCATCTTTGCCAACG------TCAGTGAGGCA 830 ATTATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACC GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 3485 AACTICCTAIGCAAGGCAGICCAIGTCAICTACACAGICAACCICTACAGCAGIGGICCIC 781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 3245 GAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC 541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC rrrcagcacarcaregraecernarecreecreenarrerearecrerecreecranee ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCCACAGGAGCGCAAGGCCCTCAAGACG ACAGICATCCICATCCIAGCTITCTITGCCIGCTGCCATATTATGTGGGGATCAGC 1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG Gaps 41; 5161; thymine FEATURE:
NAME/KEY: allele
COTION: (4030)...(4030)
COTHER INFORMATION: PS4: polymorphic base cytosine or thymine
FEATURE:
NAME/KEY: allele
LOCATION: 4262)...(4262)
COTHER INFORMATION: PS5: polymorphic base adenine or thymine
US-10-160-401-1 Length Query Match 55.1%; Score 933.8; DB 16; Length Best Local Similarity 81.6%; Pred. No. 3.7e-236; Matches 1152; Conservative 3; Mismatches 215; Indels 421 601 3770 721 3950 301 481 199 61 181 241 g q g 셤 쉱 à 음 ò g ò 셤 ò à ò ò ठे g à 쉽 ें g 8 8 ò 셤 ઠે g à

4301 4411 4471 4472 GACTGTAGAA------AAGGGAACTGAACATTCCAGAGGGTGTAGTGAATCACGTAAA 4523 1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 4190 rccacrdadrcrdagrcrrcaagrrrrcacrccagcraa-----cacadargraaa 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC 4302 ACTGACCAAIATTGTACAGTTTTTATTGCTTGGATTTTTGT-----CTTGTGTTTC 1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 4412 rgaigigiejichagecageaccienenedecaagineiraginecieratereregaag 1070 crcrandcrrrccrrdeadccaaartraaaaccrcreccadcacaccrcrere 1081 AATATATATATATATATAAAAAACTTTTTTATGTTACACATTTTCCAGATATAAGAG 4356 irriadririndidaagiriraaridacrirarirara---raaanririririndiri GACTGTAGAACTGTAGAGGAAGAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA BLOOD g THE DETECTION APPLICANT: Cocks, Benjamin G.
Susan G. Stuart
Jeffrey J. Sellhamer
Jeffrey J. Sellhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECT
RUMBER OF SEQUENCES: 1508
CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESSE: INCYTE PHARMACEUTICALS, INC.
STREET: 3174 PORTER DRIVE 1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411 4524 GCTAGAAATGATCCCCAGCTGTTTATGCATA 4554 COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: EN PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windc
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/641,643
FILING DATE: 14-Aug-2003
CLASSIFICATION DATA:
PRIOR APPLICATION DATA: APPLICATION UNDER: «Unknown»
APPLICATION NUMBER: «Unknown»
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REPERENCE/DOCKET NUMBER: PA-0001 US
TELECOMMUNICATION INFORMATION: Sequence 1213, Application US/10641643 Publication No. US20040077003A1 GENERAL INFORMATION: CITY: PALO ALTO STATE: CALIFORNIA COUNTRY: USA RESULT 2 US-10-641-643-1213 961 1321 901

Query Match
Best Local Similarity 81.8%; Pred. No. 2.1e-236;
Matches 1154; Conservative 0; Mismatches 216; Indels 41; TELEPHONE: (650) 855-0555

TELEFAX: (650) 845-4166

INFORMATION FOR SEQ ID NO: 1213:
SEQUENCE CHARACTERISTICS:
LENGTH: 1664 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TYPE: INTRANDEDNESS: single
TYPE: TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: GENBANK
LIBRARY: GENBANK
SEQUENCE DESCRIPTION: SEQ ID NO: 1213:
US-10-641-643-1213 g ò

THE WAY IS ISSUED

> 요 8 8

g

셤 ò

ò

g ò g ઠે 엄  $\stackrel{>}{\circ}$ 셤  $\dot{\delta}$ g ò

ò

9

736

676

g Sy g ò D à В

721 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCTGCCATATTATGTGGGGATCAGC ATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTTGAGAAACACTGTG ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 781

857

1318 1261 GAATGAGCGICTAGGCAGGACCTGTGGCCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 1320 1379 GACTGTAGAA------AAGGGAACTGAACATTCCAGAGCGTGTAGTTAATCACGTAAA 1430 GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380 976 1263 irriadritrididaadriraaridacritarirara----raaarritritritridiricatar 1319 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG AGCAGAGGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTT TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCCAAGACTTATAT 1097 TCCACTGAGTCTGAGTCTTCAAGTTTTCACTCCAGCTAA-----CACAGATGTAAAA 1081 AATATATATATATATATAAAAAACTTTTTTATATATATTTTCACATTTTCCAGATATAAAAA 1149 GACTİTTİTİATACGATAAATAACTTİTİTİTAAGTTACACATTİTİCAGATATAAAAG 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1201 1321 977 961 1037 1021 901 g 셤 셤 õ g ਨੇ à 쉽 ò  $\dot{\delta}$ 유 ઠે ઠ ò 吕 ઠે D. ठे 원

900

General Box, Application US/10211462

| Sequence 80, Application US/10211462
| Publication No. US20040033495A1
| Charlication No. US20040033495A1
| Charlican Invormation:
| APPLICANT: Marand |
| APPLICANT: Mateon, Susan R. |
| APPLICANT: Mateon, Susan R. |
| APPLICANT: Aziz, Nataban R. |
| APPLICANT: Box Biotechnology, Inc. |
| APPLICANT: Box Biotechnology, Inc. |
| APPLICANT: Box Biotechnology, Inc. |
| APPLICANT: Box Biotechnology, Inc. |
| APPLICANT: Box Biotechnology, Inc. |
| APPLICANT: Box Biotechnology, Inc. |
| APPLICANT: Box Biotechnology, Inc. |
| APPLICANT: Box Biotechnology, Inc. |
| APPLICANT: Box Biotechnology, Inc. |
| PRICANT: BILING DATE: 2001-002-013 |
| PRIOR FILING DATE: 2001-02-12 |
| PRIOR PLICATION NUMBER: US 60/310,025 |
| PRIOR PLICATION NUMBER: US 60/310,025 |
| PRIOR FILING DATE: 2001-10-29 |
| PRIOR FILING DATE: 2001-11-29 |
| NUMBER OF SEQ ID NOS: 230 |
| SOFTWARE PLEATION VET: 2.1 RESULT 3 US-10-211-462-80

SEQ ID NO 80 LENGTH: 1679

780

840 916

856

TYPE: DNA ; ORGANISM: Homo sapiens US-10-211-462-80

8 8 g ð 8 B 8 & 8 õ 780 840 900 CICCIGACIATACCIGACTICATCITIGCCGACGICAGCCAGGGGGACATCAGICAGGGG 540 CACAAGIGGATTICCAICACCAAGGCCCTAGCTTICCACCGTGTTGTCTGAACCCCAIC 988 180 240 300 360 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420 464 AICCTIGCCTICATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAG 523 480 583 628 600 688 9 748 898 163 120 223 283 284 CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGCCTC 343 403 463 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG 720 Arceactectrearcerecasarearcascaseserereagranticases GATGACAGATATATOTÓTGACCGOTTOTACCCCAATGACTTGTGGGTGGTTGTGTTCCAG TTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGC CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCCATC ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 224 recarcarcitatrade de carrende de la recarca de la recarecte de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación del compositación de la compositación de la compositación de la compositación de la compositación del compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación de la compositación del compositación de la compositación de la compositación de la compositación de la compositación de la compositación del compositación del compositación de la compositación de la compositación del compositación de la compositación de la compositación de la compositación de la compositación de la compositación del compositación de la compositación de la compositación del compositación del compositación del compositación de CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG AAATTTTTGTGTAAGGCTGTCCATATCTACACTGTCAACCTCTACAGCAGCGTTCTC AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC -----TCAGTGAGGCA GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTCAA TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCCTGTTACTGC 721 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCCAGCATATTATGTGGGGATCAGC ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG GAACCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTGGCTGACCTC 1679; Length Indels Score 933.4; DB 13; Pred. No. 2.1e-236; 0; Mismatches 216; 1 CTGCTGACTATTCCCGACTTCATCTTTGCCAACG Query Match
Best Local Similarity 81.8%;
Matches 1154; Conservative 344 841 584 541 629 689 199 749 808 781 869 929 121 181 301 361 421 481 61 241 601 164 중 염 8 8 8 නි සි g 8 6 8 8 g ò -S 8 8  $\dot{\delta}$ a ò g ઠે 셤 8 d 8 셤 ર્જ g  $\delta$ 

GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA

1321

g ઠે

1331 rearcreteráteses de acerción de central respectados de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra

1109 TCCACTGAGTCTGAGGTCTTCAGTTTTCACTCCAGGCTAA-----CACAGAGTGTAAAA 1160

1161 1141 1221 1201 1275

1081 AATATATATATATATATATATAAAGAACTTTTTATGTTACACATTTTCCAGATATAAGAG

1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG

ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC

COMPOSITIONS FOR CONTROL OF BONE FORMATION VIA OF NEUROPEPTIDE Y ACTIVITY 120 223 180 240 300 9 164 GAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC 284 CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACTGTCAGTGGCCGACCTC CTCTTIGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC CAGAAGAAGCTAAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG Gaps 41; Length 1679; Indels DB 13; Query Match
55.1%; Score 933.4; DB 13;
Best Local Similarity 81.8%; Pred. No. 2.1e-236;
Matches 1154; Conservative 0; Mismatches 216; Sequence 9, Application US/10181906
| Publication No. US20040053864A1
| GENERAL INFORMATION:
| APPLICANT: Karsenty, Gerard
| APPLICANT: Aming , Michael
| APPLICANT: Aming , Michael
| APPLICANT: Aming , Michael
| APPLICANT: Aming , Michael
| TITLE OF INVENTION: METHODS AND COMPOSITIONS
| TITLE OF INVENTION: METHODS AND COMPOSITIONS
| TITLE OF INVENTION: METHODS AND COMPOSITIONS
| TITLE OF INVENTION: MOMBER: 18/10/181,906
| CURRENT PILING DATE: 2002-11-13
| PRIOR APPLICATION NUMBER: PCT/US01/02040
| PRIOR PILING DATE: 2001-01-22
| WUMBER OF SEQ ID NOS: 16
| SEQ ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 550 ID NO 9: 55 TYPE: DNA
; ORGANISM: Homo sapiens
US-10-181-906-9 LENGTH: 1679 121 61 181 241 g ઠે ઠ g ઠે g ð G ò

> AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020

AGCAGAGGGTCCAGGCTCCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTT

CICIAIGCCITCCICGGGGCCAAGIICAAAAGCICIGCCCAGCAIGCACICAACICCAIG 960

901 983 961

> 쉱 õ

TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080

1048 1020 1080 1160 1260 1330 1320 1049 AGCAGAGGGTCCAGCCTCAAGATCCTCTCAAAGGAAAGCGAGGTGGACATTCATCTGTT 1108 1274 1442 540 748 780 840 900 960 463 420 523 480 628 600 99 808 868 928 988 ATCATCATCICTAAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCCAAAGGCCCTCAAGACG 720 464 ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACCACCAACAGTCAG TITCAGCACATCAIGGTTGGCCTTAICCTGCCTGGTAITGTCATCTGTCCTGCTAITGC ATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGGAGTTTGAGAACACTGTG 1161 GACTTTTTTTTATACGATAAATAACTTTTTTTTAAGTTACACATTTTTCAGATATAAAG 1275 TITAGITITIGIGAAGITIAATIGACITATITATA----TAAAITITITIGITICAIAI 344 CTCTTTGTCATCACGCTTCCCTTCTGGCCAGTTGATGCCGTGGCAAACTGGTACTTTGGG 584 CIGCIGACIATICCCGACITCAICITIGCCAACG-------TCAGIGAGGCA 629 GATGACAGATATATOTGTGACCGCTTCTACCCCAATGACTTGTGGGTGGTTGTGTTCCAG ATTATCATCTCCAAGCTGTCACACTCCAAGGCCACCAGAAGCGCAAGGCCCTCAAGACC ACAGICATCCICATCCTAGCTTTCTTTGCCTGCTGCCATAITATGTGGGGATCAGC ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACAAATCAGC CACAAGIGGAICTCCAICACAGAGGCCCTCGCCTICTICCACIGITGCCTGAACCCCAIC CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATATAT 1081 AATATATATATATATATATAAAGAACTTTTTATGTTACACATTTTCCAGATATAAGAG 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATTCC 1221 Acricaccanariciacacrirrinariccrircricantruricr-----cricicriric TOTAGITITITGEGGTTTGACTTAATTTATATATATATTTTTTTTTTTGTTTTCATGT 1261 GAAIGAGCGICTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCCAGCCCTC AGGCCAAGGAAAGTGTTGGTGAAAAAGGTGTTTTGTTGGCGTCTGGATCCCTGCCTC GATGACAGGTACATCTGTGACCGCCTTTACCCCGGATAGCCTGTGGATGGTGTGTTTCAA ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCT 421 524 541 661 749 721 809 781 869 841 929 989 961 1109 1201 481 601 689 901

> ò D

g à d 8 g දු පු

8 8 8

ò

8 g ò a ò d D ò 셤 요 ò 음 ò 원 8 d à d ò g ò

ò

APPLICANT: Dai, Hongvue
APPLICANT: Dai, Hongvue
APPLICANT: Dai, Hongvue
APPLICANT: Linaley, Peter S.
APPLICANT: And, Mao
APPLICANT: Mac, Mao
APPLICANT: Van 't Veer', Laura Johanna
APPLICANT: Van 't Veer', Laura Johanna
APPLICANT: Van 't Veer', Laura Johanna
APPLICANT: Van 't Veer', Laura Johanna
APPLICANT: Van de Vijver, Marc J.
APPLICANT: Bernards Rene
TILLB OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
FILE REFRENCE: 9304-188-999
CURRENT FILING DATE: 2001-06-18
PRIOR FILING DATE: 2001-06-18
PRIOR FILING DATE: 2002-05-44
PRIOR FILING DATE: 2002-05-44
PRIOR FILING DATE: 2002-06-14
PRIOR PLICATION NUMBER: 10/172,118
PRIOR PLICATION NUMBER: 10/172,118
PRIOR PLICATION NUMBER: 10/172,118
PRIOR PLICATION NUMBER: 10/172,118
PRIOR PLICATION NUMBER: 10/172,118
PRIOR PLICATION NUMBER: 10/172,118
PRIOR PLICATION OF SEQ ID NOS: 2699
SEQ ID NO 912
LENGTH: 1679 104 ATATACACTICAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG GAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC 121 TTCATCATCTTCTTCATCACTGCCATACTCGCCAATGCATTGGTCATCGCTCATGCGTCATGCGTTAC
224 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTC GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC CAGAAGAAACTGAGAAGCATGAGGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC 344 CICITIGICALCACGCIICCCIICIGGCCAGIIGAIGCCGIGGCAAACIGGIACIIIGGG 361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC 1 ATATACACTICIGATAACTACTCTGAAGAGTGGGGTCTGGAGACTATGACTCCAACAAG CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC CICITIGICATCACACICCCCTICIGGGCAGITGAIGCCAIGGCIGACIGGIACTTIGGG ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCGTCCACGCCACACAGTCAG 41; Gaps Query Match 55.1%; Score 933.4; DB 13; Length 1679; Best Local Similarity 81.8%; Pred. No. 2.1e-236; Matches 1154; Conservative 0; Mismatches 216; Indels 41; 1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA
1443 GCTAGAAATGATCCCCAGCTGTTTATGCATA Sequence 912, Application US/10342887 Publication No. US20040058340A1 GENERAL INFORMATION: TYPE: DNA
CRGANISM: Homo sapiens
US-10-342-887-912 RESULT 5 US-10-342-887-912 164 181 284 404 61 241 301 464 121 524 481 ઠ 셤 g 셤 ò ઠે ò 셤 ò 유 ઠે 셤 ò Вb ठ ద ଟ 엄 ò

'n

120

180 223

283

343 300 403 360 463 420 480

540

Tue May 18 13:54:46 2004

uguz./-zco-/es-ko-gn

•	<del>.,</del>	•																-											
628	000	ט מ	74	720	808	780	868	8 4		90	886	960	1048	1020	1108	1080	1160	1140	1220	1200	1274	1260	1330	1320	1390	1380	1442		
- -TCAGTGAGGCA	GTTTCAP		CTATTGO	CAAGACG	CAAGACC	GATCAGO	gATCAGO	CATTGIG	CACIGIO	CCCCATO	ACCCCATC	ACTCCATG	CTCTGTG	TTCCGTC	ATCTGT	CTTATAT	atgiaaa	PATAAGAC	TATAAAAG	rargrico	rgreitre	TTCATG	TTCATA	STGTGTAC	CGTGGTAC	GAATAA	CACGTAA		
  TCAG	ATGGTGG	9119915	TOTOLOLD	AAGGCCCT	AAGGCCCT	TATGTGGC	racatro	TTCGAGAC	LTTGAGA	TGCCTGA2	TGTCTGA	GCACTCA!	GCACTCAC	GGACACTO	GGACATT	TGCAAAG	cacad	TTCCAGA	TTTCAGA	GGGAGTT:	Cf.	TTGTTTG	TTTTTG	TTTATCT	TATGTCT	GGTAAAT	AGTGAAT		
 	CCTGTGG		TGTCATO	GAAGCGC	GAAGCGC	GCCATAT	GCCTTAC	ATGTGAC	GTGTGAG	CCACTGT	CCACTGT	CCAGCAT	ccagcac	1000000T	GCGAGGT	ACCCTTA	-A	ACACATT	ACACATT	GACTGTT	TTTTGT-	TTGTTT	-TAAATT	GTAGCTG	GTTGCTG	AATGTGT	AGCGTGT		
	GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCTGTGGATGGTGGTGTTTCAA	CCAATGA	TTTCAGCACATCATGGGTGGGCCTTATCCTGCCTGGTATTGTCATCCTGTCTTTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATTGCTATT	ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG	GCCACCA	ACAGICAICCICATCCIAGCITICITIGCCIGCCIGCCAIATIAIGIGGGAAICAGC	rerrecci	ATCGACTCCTTCAPCCTTTTGGGAGTCAPCAAGGAAGGATGTGACTTCGAGAGCATTGTG	AAGCAAGG	CACAAGTGGATCTCCATCACAGGGCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC	SCTTTCTI	CICIAIGCCIICCECGGGGCCAAGIICAAAGCICIGCCCAGCAIGCACICAAG	Accrere	AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGGGAGGTGGACACTCTTCCGTC	AAAGGAAA	CCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT	rccagcia	AATATATATATATATATATAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG	rttaagti	ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAALTGACTGTTGGGAGTTTAATGTTCC	rgrrggai	TCTAGITITIGIGAGGITIGACTIAATITATAAAATATGITITITIGITIGITIGATGT	TTATA	AGTICITA	TGATGTGTCTAGGCAGGACCTGTGCCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG	GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA	CATTCCAC	A 1411	A 1473
	CCTTTAC	CTTCTAC	TATCCTG	CTCCAAG	CTCCAAG	CTTTGCC	cricecc	AGTCATC	AATCATC		GGCCCTA	GTTCAAA	ATTTAAA	CCTTTCC	CCTCTCC	TTTTCAC	TTTTCAC	GAACTIT	ACTTTT	TTTTTT	TATTGCT	TAATTAAT	GACTTAT	GTGGCCA	GTGGCCA	AACTGAA	AACTGAA	GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411	татссат
	GTGACCG	GTGACCG	1100001	TGTCACA	TGTCACA	TAGCTT	rederri	TTTTGGG	TCCIGGA	ATCACAGA	ATCACCGA	36GGCCAA	sgaĠĊĊĀĀ	TCAAGAT	TCAAGAT	CCTCCAG	rcrrcaad	ATGATAAP	BATAATP	ACAGITIT	ACAGITI	STTTGACT	STTTAATT	CAGGACCT	CAGGACCT	SAGGAAGA	<b>AA</b> GGC	CAGCTGT	CAGCTGT
	STACATO	TATATC	CATCATG	CTCTAAGG	TCCAAGC	CTCATC	crcarc	CTTCATC	CTTCATC	SATCTCC	3ATTTCC	CTTCCTCC	rirccirc	CTCCAGC	GTCCAGC	GICAGAA	STCTGAG	TATATAT	rtatac	GTCTTGT	ATATTGT	TTGTGAGG	rtgigaa(	GTCTAGG	GTCTAGG	AACTGTA(	AA	TGATCCT	rdarcco
 TGCTGAC	ATGACAGO	ATGACAG	TTCAGCA(	TCATCAT	TATCAT	CAGTCAT	CAGTCAT	TCGACTC	rcgacre	ACAAGTG	ACAAGTG	TCTATGO	TCTATGC	GCAGAGG	GCAGAGG	CCACGGA	CCACTGA	ATATATA	ACTTTT	CTGACCA	CTGACCA	CTAGITI	TTAGTTT	AATGAGO	GATGTGT	ACTGTAG	ACTGTAG	CIAGCCG	CTAGAAA
584 C	(		[- - 60 - 60 - 90 - 90	661 A	749 4	721 A	809			Н	929 C	ref	088	961 A	1049 A	1021 T	1109 T	1081 A	1161 G	1141 A	1221 A	1201 T	1275 T	1261 G	1331 T	1321 G	1391 G	1381 G	1443 G
g	io i	an i	S &		Db	ζ	du	<i>ک</i> و :	ag G	ζ	gp	ò	Op	οy	qq	οy	qQ	δλ	qq	à	ОÞ	ογ	Db	ογ	qq	λō	QQ	λ̈́	ପ୍ର
Ω	OI I	a (	בים עם	Ö.	Ď	Ò	D	òr i	Ω̈́	O)	Ω.	O	Д	O	Δ	Òı	Д	O	Д	O.	Д	O	Д	O	Д	O.	Ц	G	Ц

RESULT 6
US-10-151-274-14
Sequence 14, Application US/10151274
Publication No. US20030064071A1
GENERAL INFORMATION:
APPLICANT: Littman, Dan R.
APPLICANT: Wan, Douglas S.
APPLICANT: van Kooyk, Yvette
APPLICANT: Geijtenbeck, Theo

360 523 104 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGACTATGACTCCATGAAG 163 120 223 180 283 240 343 463 361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420 480 583 688 099 748 720 808 780 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 840 ; TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF RETROVIRAL ENTRY;
TITLE OF INVENTION: LWO
; TITLE OF INVENTION: CELLS
; FILE REPERBNCE: 1049-1-017
; CURRENT APPLICATION NUMBER: US/10/151,274
; CURRENT PILING DATE: 2002-05-20
; FRIOR PPLICATION NUMBER: US/09/517,605
; RRIOR APPLICATION NUMBER: US/09/517,605
; RRIOR FILING DATE: 2000-03-02
; NUMBER OF SEQ ID NOS: 17
; SEQ ID NO 14
; SEQ ID NO 14
; THE: DNA
; ORGANISM: Homo sapiens
US-10-151-274-14 61 GAACCCTGCTTCCGGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 121 TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
224 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC 301 AAATTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 404 AACTICCIAIGCAAGGCAGICCAIGICAICIACACAGICAACCICIACAGCAGIGICCIC 464 ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAG Trecaccarapaaregregererearecreceeecaregrearecrecreginacree 661 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGGCGCAAGGCCTCAAGACG 721 ACAGICATCCTCATCCTAGCTTCTTTGCCTGCTGCTGCCATATTATGTGGGGATCAGC 809 ACAGTCALCCTCATCCTGGCTTTCTTCGCTGCTTGGCTGCCTTACTACTACATGGGATCAGC 1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG Indels 41; Gaps Query Match
55.1%; Score 933.4; DB 13; Length 1679;
Best Local Similarity 81.8%; Pred. No. 2.1e-236;
Matches 1154; Conservative 0; Mismatches 216; Indels 41; 541 601 749 8 6 8 셤 da 8 8 6 6 6 ઠે 엄 ò 엄 ò d ò g 8 g S Dp ð ò Sp õ

us-09-367-052-7.rnpb

```
DB 13;
Score 933.4; DB 13;
Pred. No. 2.1e-236;
0; Mismatches 216;
                                                                                                                                                                                                                                                                                                                                                                                                 CTGCTGACTATTCCCGACTTCATCTTTGCCAACG
Query Match
Best Local Similarity 81.8%;
Matches 1154; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                                                                   61
                                                                                                                                                                     181
                                                                                                                                                                                                             241
                                                                                                                                                                                                                                    344
                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                524
                                                                                                                                                                                                                                                                                                                                                                                                        584
                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                 629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1049
                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                          ద
                                                                                  ઠે
                                                                                                    g
                                                                                                                          8
                                                                                                                                              g
                                                                                                                                                                     ઠે
                                                                                                                                                                                     d
                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                               ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                1320
                                                                                                                                                                                                                                                                                                                                                                                               1442
                                                                                     CICIAIGCITICCITGGAGCCAAAITIAAAACCICTGCCCAGGAGGCACGCACTCTGTG 1048
                                                                                                                                                           TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                             TCCACTGAGTCTGAGTCTTCAAGTTTTCACTCCAGCTAA------CACAGATGTAAAA 1160
                                                                                                                                                                                                    1140
                                                                                                                                                                                                                       1161 GACTTTTTTTTATACGATAAATTAACTTTTTTTTAAGTTACACATTTTTCAGATATAAAAG 1220
                                                                                                                                                                                                                                              ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC 1200
                                                                                                                                                                                                                                                                  1274
                                                                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                           1330
                                                                                                                                                                                                                                                                                                                                                                           1380
                                                                                                                   AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020
                                 900
            928
                                                    cacaacrecarriccarcaccasecorractricriccacrericrearcacarc 988
                                                                          CICIAIGCCIICCICGGGCCAAGIICAAAAGCICTGCCCAGCAIGCACICAACTCCAIG 960
                                                                                                                                                                                                                                                                                                                                                                                       1081 AATATATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG
                                                                                                                                                                                                                                                         TITAGITITIGIGAAGITITAATIGACTITATA----IAAATITITITITIGITITCATAT
                                                                                                                                                                                                                                                                                                                                 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTATAG
                                                                                                                                                                                                                                                                                                                                                     reargrereteragecageacereresceaagreerreragingererarereresage
                                                                                                                                                                                                                                                                                                                                                                            GACTGTAGAACTGTAGAGGAAGAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA
 ATGACTCCTTCATCCTCGAAAATCATCAAGCAAGGGTGTGAGTTTGAGAAACACTGTG
                                 Breast Cancer Patients
                                                                                                                                                                                                                                                                                                                                                                                                                                GCTAGAAATGATCCCCAGCTGTTTATGCATA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                    1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             늉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Dai, Hongyue
APPLICANT: Dai, Hongyue
APPLICANT: Dai, Hongyue
APPLICANT: He, Yudong
APPLICANT: Linaley, Peter
APPLICANT: Mac, Mac
APPLICANT: Roberts, Chris
APPLICANT: Van de Vijver, Marc
APPLICANT: Van de Vijver, Marc
APPLICANT: Bernards, Rene
TILE OF INVENTION: Diagnosis and Prognosis of
FILE REFERENCE: 9301-175-999
CURRENT APPLICATION NUMBER: US/10/172,118
CURRENT APPLICATION NUMBER: 60/380,770
PRIOR FILING DATE: 2002-06-14
NUMBER OF SEQ ID NOS: 2699
SEQ ID NO 912
LENGTH: 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo sapiens
PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: NM 003467
DATABASE ENTRY DATE: 2001-06-18
US-10-172-118-912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Sequence 912, Application US/10172118; Publication No. US20030224374A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 7
US-10-172-118-912
                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                1391
                                                                                                                                                                                                                                                                                                             1275
                                                                                                                                                                                                                                                                                                                                                        1331
                                                                                                                                                                                                                                                                                                                                                                            1321
                                                                                                                                                                                                                                                                                                                                                                                                                                         1443
                                                       929
                                                                           901
                                                                                               989
                                                                                                                    961
                                                                                                                                         1049
                                                                                                                                                              1021
                                                                                                                                                                                 1109
                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                 8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                     g
              g
                                                                   S 6
                                                                                                                                   셤
                                                                                                                                                           8 8 8
                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                        ⋧
                                                                                                                                                                                                                                                                                     8 8
                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                              à
                                ઠે
                                                 g
                                                                                                              ठे
```

```
AGCAGAGGGTCCAGCTCCACTCCTCCCAAAGGAAAGCGAGGTGGACATTCATCTTT 1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                             5,
                                                                                                                                                                                                                                            163
                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                     223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             988
                                                                                                                                                               09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           164 GAACCCTGTTTCCGTGAAAAAAAAAAAATGCTAATTAAAATCTTCCTGCCACCATCTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         224 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CICITIGECALCACGCITCCCTTCTGGGCAGTTGATGCCGTGGCAAACTCGTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAIIIIIGIGIAAGGCIGICCATAICATCTACACIGICAACCICIACAGCAGCGITCIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           464 Ariccigoccircarcagrerida acceraceració de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción de concerción d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 749 ATTATCATCTCCAAGCTGTCACACTCCAAGGCCACCAGAAGCGCAAGGCCCTCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACAAGTGGATCTCCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CICIATGCCITCCICGGGCCAAGIICAAAAGCICTGCCCAGCAIGCACTCAACICCAIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CICITIGICATCACACICCCCTICIGGGCAGIIGAIGCCAIGGCIGACTGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGCCAAGGAAACTGCTGGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATGACAGGTACATCTGTGACCGCCTTTACCCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>eareacadariararcrereaccecrreraccecaareacrreregadearereres</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCATCATCTTAAGCTGTCACACTCCAAAGGGCCCACCAGAAGCGCCAAAGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          809 Acadricarchicarchidentricationaridechectriachacarradearcaec
                                                                                                                                                                                                                                                 ATATACACTTCAGATAACTACACCGAGGAATGGGCTCAGGGGACTATGACTCCATGAAG
                                                                                                                                                               1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG
                                                                             Gaps
                                                                                 41;
Length 1679
                                                                             Indels
```

420

523 480 583 628 900 099 748 808 780 868 840

```
1049 AGCAGGTCCAGCCTCAAGATCCTCTCCAAAGAAAAGCGAGGTGGACATTCATCTGTT 1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       869 ATCGACTCCTTCATCCTCCTGGAAATCATGAGGGTGTGAGTTTGAGAACACTGTG 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CICIAIGCCIICCICGGGGCCAAGIICAAAAGCICIGCCCAGCAIGCACICAACICCAIG 960
                                                                                                                                                                                                                                                                                                                                                  661 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               224 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTCAGCACACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Acreaccaararreracagrirrrarrecrierregarrirrer------crisirric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTAGITITITGTGAGGITIGACITAAATTTATATAAATATIGITTTTGTTTGTTTGTTTCATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081 AATATATATATATATATGATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCACCAACAGTCAA
                                                                                                                                                                                                                                       464 AICCIGGCCTICAICAGICIGGACGGCIACCIGGCCAICGICCACGCCACCAACAGICAG
                                                                                                                                                                                                                                                                                                                                                                              584 checheacharrecedaerrearchreceaace
                                                                                                                                                                                                                                                                                                                                                                                                                GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 809 ACAGICAICCICAICCIGGCITICIICGCCIGIIGGCIGCCIIACIACAIIGGGAICAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CICTITGICATCACACTCCCCTICTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                CICTITGICATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG
                                                                                                                                                          AAATTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCGTTCTC
                                                                                                                                                                                      404 AACTICCIATGCAAGGCAGTCCAIGTCATCTACACAGTCAACCTCTACAGCAGTGTCTTC
                                                                                                                                                                                                                                                                                                      781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                             CAGAAGAAACTGAGAAAGCATGACGGACAAGTACAGGCTGCACTGTGTCAGTGGCCGACCTC
                                                                                                                                                                                                                                                                                    421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC
                                                                                             241 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1275
                                                                                                                                                                                                                                                                                                                                                481
                                                               284
                                                                                                                                                          301
                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                   181
                                                                                                                             344
                                                                                                                                                                                                                                                                                                                    524
                                                          g
                                                                                                                      g
                                                                                                                                                 ð
                                                                                                                                                                                    셤
                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                           쉱
                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                 ò
                                                                                        à
                                                                                                                                                                                                               ò
1140
                                                                             1220
                                                                                                                               1260
                                                                                                                                                                                                                                                                     1390
                                                                                                            ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC 1200
                                                                                                                                                                                                       1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 1320
                                                                                                                                                                                                                                                                                                     GACTGTAGAACTGTAGAGGAAGAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380
                                                                                                                                                                                                                                                                                                                            GACTGTAGAA------AAGGGAACTGAAACATTCCAGAGCGTGTAGTGAATCACGTAAA 1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TICATCATCATCTTGACTGGCATAGTCGGCAATGGTTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               104 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  164 GAACCCEGETTICCGEGAAAAGCETAATITICAATAAAATCTICCTGCCCACCATCTAC
                                                                                                                                                                         TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG
                                              1081 AATATATATATATATGATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG
                                                                           1161 GACTTTTTTTTATACGATAAATAACTTTTTTTTAAGTTACACATTTTCAGATATAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 55.1%; Score 933.4; DB 13; Length 1679; Best Local Similarity 81.8%; Pred. No. 2.1e-236; Matches 1154; Conservative 0; Mismatches 216; Indels 41;
                                                                                                                                                                                                                                                                                                                                                                 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                               GCTAGAAATGATCCCCAGCTGTTTATGCATA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-170-385-332

US-10-170-385-332

SQUENCE 332, Application US/10170385

Publication No. US20030203372A1

GENERAL INFORMATION:

APPLICANT: Mandy, Christopher Robert
APPLICANT: Mandy, Christopher Robert
APPLICANT: Man, On

APPLICANT: Man, On

APPLICANT: Man, Subert Alan

APPLICANT: Man, On

APPLICANT: Ran, William Nigel
APPLICANT: Ran, William Nigel

APPLICANT: Rapmer, William Nigel

APPLICANT: Ringsman, Susan Mary

APPLICANT: Kingsman, Susan Mary

APPLICANT: Kringsman, Susan Mary

APPLICANT: Kringsman, Susan Mary

APPLICANT: Kringsman, Susan Mary

APPLICANT: Kringsman, Susan Mary

APPLICANT: Kringsman, Susan Mary

APPLICANT: Kringsman, Susan Mary

APPLICANT: Kringsman, Susan Mary

APPLICANT: Kringsman, Susan

CURRENT FILING DATE: 2002-06-12

PRIOR APPLICATION NUMBER: PCT/GB01/05458

PRIOR FILING DATE: 2001-12-10

NUMBER OF SEQ ID NOS: 549

SOGTWARE: FBSESEQ for Windows Version 4.0

LENGTH.: 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: HOW
US-10-170-385-332
                1109
                                                                                                           1141
                                                                                                                                       1221
                                                                                                                                                                                                                                                                                                                                 1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                       1201
                                                                                                                                                                                                        1275
                                                                                                                                                                                                                                                                   1331
                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                 1381
                                                                                                                                                                                                                                                                                                                                                                                               1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             硆
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                           ઠ
                                                                      g
                                                                                             6
6
6
                                                                                                                                                                ð
                                                                                                                                                                                             g
                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                            g
```

481 CTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCGAGGGGGACATCAGTCAG	541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGGTAGCCTGTGGATGGTGGTGTTTCAA 600	601 TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATGGTCTCTCTC	661 ATCATCATCTAAGCTGTCACACTCCAAGGGCCACCAGAAGGCGCAAGGCCCTCAAGACG 720 	721 ACAGTCATCCTCATCCTAGCTTTCTTTGCTGCTGCTGCCGTATTATGTGGGGATCAGC 780	781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 840	841 CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 900	901 CTCTAIGCCTICCTCGGGGCCAAGTICAAAAGCICTGCCCAGCATGCACTCAACTCCATG 960	961	1021 ICCACGGAGICAGAAICCICCAGITITCACICCAGCIAACCCITAIGCAAAGACITAIAI 1080 	1081 AATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCAGATATAAGAG 1140	1141	1201 TCTAGTTTTTGTGAGGTTTGACTTAATTTATAAATATTGTTTTTTGTTTG	1261 GAATGAGCGTCTAGGCAGCTCTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTG	1321 GACTGTAGAACTGTAGAGGAAGAAGAACTGAACATTC	1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411 	RESULT 10 US-10-021-660-58 Sequence 58, Application US/10021660	FUBLICATION NO. USZUGJUJZZZZBAI GENERAL INFORMATION: APPLICANT: Murray, Richard APPLICANT: Glynne, Richard APPLICANT: Watson, Susan R.
상 음	% व	B &	\$ B	8 8	\$ g	\delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \delta \d	\$ A	Qy Db	පු පු	8 8	ъ д В	8 8	ò 8	S a	දි දි	RES US-	
1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTG	DD 1331 TGATGTGTGTGTGGGGGGGGGGCTGTGGGCCAAGTTCTTAGTTGCTGTATGTCTGGTAG 1390  QY 1321 GACTGTAGAAGAAGAAGAAGAAGAACATTCCAGAATGTGTGGTAATAAATA	1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411  1382 GCTAGCCGTGATCTTGCTGCATA 1411  1383 GCTAGCTGTTGCTGCTAGTTGCTGCATA 1411	STET 9 TINS	նաբա	APPLICANT: LIESPAN BIOSCALENCES APPLICANT: Burmer, Glena C. APPLICANT: Burmer, Glena C. APPLICANT: Roush, Christine L.	; TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS; FILE REFERENCE: 1920-4-4 ; CURRENT APPLICATION NUMBER: US/10/225,567A ; CURRENT FILING PATE: 2001-12-19/25 ; DEFICE ANTIAGENES OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSPORTER OF A TRANSP	•	່ ດ	Query Match 55.1%; Score 933.4; DB 15; Length 1679; Best Local Similarity 81.8%; Pred. No. 2.1e-236; Length 1679; Matches 1154; Conservative 0; Mismatches 216; Indels 41; Gaps 5;	CTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCGAACAG 60	61 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGAATCTTCCTGCCCACCATCTAC 1	TTCATCATCTTCTTGACTGGCAATAGGCGAATGGATTGGTGATGGTCATGGGTTAC	OY 181 CAGAAGAAAGTAAAGAAGACAAGTACCGGCTGCACCTGTCAGTGACCTC 240	Oy 241 CTCTTTGTCATCACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 300	Oy 301 AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360  bb 404 AACTTCCTATGCAAGGCAGTCCATGTCATCTACAGAGTCAACCTCTACAGCAGTGTCCTC 463	OY 361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420	Qy 421 AGGCCAAGGAAACTGCTGGCTGAAAAGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC 480

TYPE: DNA ORGANISM: Homo sapiens FEATURE: 841 929 196 1021 1141 1275 901 1201  $\delta$ 임 ઠે g ò 8 ò g ò g ò 엄 상  $\stackrel{>}{\circ}$ 요 ò 엄 ઠે 셤 ઠ ద ## APPLICANT: EOS Biotechnology, Inc.

TITLE OF INVENTION: No. US2030152926Alel Methods of Diagnosis of Angiogenesis,
TITLE OF INVENTION: Compositions and Methods of Screening for Angiogenesis
TITLE OF INVENTION: Modulators
FILE REFERENCE: 018501-000710US
CURRENT APPLICATION UNDER: US/10/021,660
CURRENT PILING DATE: 2001-02-14
PRIOR FILING DATE: 2001-02-14
PRIOR FILING DATE: 2000-08-11
MUMBER: OF SEQ ID NOS: 135
SOFTWARE: FastsEQ for Windows Version 3.0
SEQ ID NO 58
LENGTH: 1679
LENGTH: 1679
CURRENT: COMPANA
CONGANISM: Homo gapiens
US-10-021-660-58 ŝ 164 GAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC 223 ACAGICAICCTCAICCTAGCTITCTITGCCTGCTGCCGATAITAIGTGGGGATCAGC 780 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120 TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180 283 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 240 300 404 AACTTCCTATGCAAGGCAGTCCATGTCATACACAGTCAACGTCAACCTCTACAGCAGTGTCTC 463 361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420 523 480 524 AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC 583 541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTCAA 600 TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC 660 284 CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC 343 344 CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG 403 AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360 689 TTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGC 748 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACAGAAGCGCAAGGCCCTCAAGACG 720 224 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 1 ATATACACTICTGATAACTACTCTGAAGAGTGGGGTCTGGAGACTATGACTCCAACAAG <u> AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGGGTCTGGATCCCAGCCCTC</u> Gaps Query Match 55.1%; Score 933.4; DB 15; Length 1679; Best Local Similarity 81.8%; Pred. No. 2.1e-236; Matches 1154; Conservative 0; Mismatches 216; Indels 41; 121 61 181 241 301 421 481 584 529 501 661 721 셤 ò g ò ద ò g ઠે g δ 엄 8 & 8 à 8 a 중염 र्छ हि र्छ 8 CD

1320 1380 1200 1330 1391 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA 1442 989 ciciáriócirricciridaadccaaaririaaaaccicideccaacacacicacicacicierard 1048 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080 1161 GACTTTTTTTTTATACGATAAATAACTTTTTTTTAAGTTACACATTTTTCAGATATAAAAG 1220 1221 Actigaccaaratrictacactrirtrariscristricsarririst-----crististic 1274 988 960 809 ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGC 868 CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC TITAGITITITGIGAAGITITAATIGACITATITATA----TAAATITITITGITITGATAT 1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGTAG 1331 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 1049 AGCAGAGGGTCCAGCCTCAAGATCCTCTCAAAGGAAAGCGAGGTGGACATTCATCTGTT 1109 TCCACTGAGTCTTCAAGTTTTCACTCCAGCTAA-----CACAGATGTAAAA CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG **ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC** 1321 GACTGTAGAACTGTAGAAGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 869 Arceachcentearcencerdeaaarcarcaaceaaggaggergreagringagaacacherd 1081 AATATATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG 1443 GCTAGAAATGATCCCCAGCTGTTTATGCATA 1473 1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411

RESULT 11
US-10-341-434-177
; Sequence 177, Application US/10341434
; Publication No. US20030218935A1
; Publication No. US20030218935A1
; GENRRAL INFORMATION:
; APPLICANT: Origine Technologies
; TILE REFERENCE: 9U 204 205 R1
; CURRENT FILING DATE: 2003-07-18
; PRIOR APPLICATION NUMBER: US 60/348,164
; PRIOR APPLICATION NUMBER: US 60/348,164
; PRIOR FILING DATE: 2002-01-15
; PRIOR FILING DATE: 2002-01-15
; PRIOR FILING DATE: 2002-01-15
; RIOR APPLICATION NUMBER: US 60/348,119
; RIOR FILING DATE: 2002-01-15
; RUBBER OF SEQ ID NOS: 238
; SOFTWARE: PALENTIN VERSION 3.1
; SEQ ID NO 177

; NAME/KEY: CDS ; LOCATION: (89)..(1144) ; OTHER INFORMATION: US-10-341-434-177

```
TITAGITITITIGIGAAGITIAATIGACITATITATA----TAAAITITITITITIGITICATAT 1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1331 rgardrereraksekadakeerdreseeekadrietrasirseratiorerateerada 1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380
CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20, Application US/09971392

Publication No. US20030134283A1

GENERAL INFORMATION:
APPLICANT: Peterson, David P.
APPLICANT: Peterson, Cecelia I.
APPLICANT: Cocks, Benjamin G.
TILLE OF INVENTION: SEMES REGULATED IN DENDRITIC CELL DIFFERENTIATION FILE REFERENCE: PA-0029 US
CURRENT FILING DATE: 2001-10-03
FRICK FILING DATE: 2001-10-03
FRICK FILING DATE: 2000-10-03
FRICK FILING DATE: 2000-10-03
FRICK FILING DATE: PECCATION NUMBER: 60/237,652
FRICK FILING DATE: 2000-10-03
FRICK FILING DATE: PECCATION NUMBER: 60/237,652
FRICK FILING DATE: PECCATION NUMBER: 60/237,652
FRICK FILING DATE: PECCATION NUMBER: 60/237,652
FRICK FILING DATE: DECCATION NUMBER: 60/237,652
FRICK FILING DATE: DECCATION NUMBER: 60/237,652
FRICK FILING DATE: DECCATION NUMBER: 60/237,652
FRICK FILING DATE: DATE: DECCATION NUMBER: 60/237,652
FRICK FILING DATE: DATE: DECCATION NUMBER: 60/237,652
FRICK FILING DATE: DATE: DECCATION NUMBER: 60/237,652
FRICK FILING DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE: DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       139 ATATACACTICAGATAACTECACGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      259 recarcaretraacroscarroroscaarosarrosrearetros este reservados estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas estas 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                   AATATATATATATATATATAAAGAACTTTTTTATATACACATTTTCCAGATATAAAGAG
                                                                                                                    ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC
                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 81.8%; Pred. No. 2.2e-236;
Matches 1154; Conservative 0; Mismatches 216;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1443 GCTAGAAATGATCCCCAGCTGTTTATGCATA 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PEATURE:
NAME/KEY: misc_feature
OTHER INFORMATION: Template ID: 284616.
NAME/KEY: unsure
LOCATION: 1706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    or other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: a, t, c, g, US-09-971-392-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 12
US-09-971-392-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                    1109
                                                                                      1081
                                                                                                                                                                                                                                                                                                                                                   1275
                                                                                                                                                                                                                                                                                                                                                                                                        1261
                                                                                                                                                                                                1141
                                                                                                                                                                                                                                               1221
                                                                                                                                                                                                                                                                                                 1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     දි දි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                g
                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                              8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                      g &
                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                  'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCGACGCCACCGACAGTCAG 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            583
                                                                                                                                                                    163
                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                           223
                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                  283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACAAGTGGATTTCCATCACCAAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Trrcadcacarcarderredecerrarecredeceratrarerearecreterecretaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCATCATCTTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCCCATATTATGTGGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      809 ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACATTGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                                                                                                                                                             cadaadaaacroaddaaaccadcaacaacracadcrocaccrorcagroeccoaccro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CICTITIGECATCAGCTICCCTICTGGGCAGTIGATGCCGTGGCAAACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTTACTGC
                                                                                                                                                                    104 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG
                                                                                                                                                                                                                           GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cremmercancacarcrecempereses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                    1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                       CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                  Gaps
           Query Match 55.1%; Score 933.4; DB 16; Length 1679; Best Local Similarity 81.8%; Pred. No. 2.1e-236; Matches 1154; Conservative 0; Mismatches 216; Indels 41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₽ 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                충염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                         \dot{\delta}
                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

5,

Gaps

41;

120 258 180

198

Db   1366 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG 1425	RESULT 13 US-10-101-510-459  is Sequence 459, Application US/10101510  is Publication No. US20030148295A1  is GENERAL INFORMATION:  APPLICANT: WAN, JACKSON  is APPLICANT: WANG, YIXIN  is TITLE OF INVENTION: EXPRESSION PROFILES AND METHODS OF USE  FILE REFERENCE: 15.117.0012  is CURRENT APPLICATION NUMBER: US/10/101,510  is CURRENT FILING DATE: 2002-03-20  is PRICE APPLICATION NUMBER: 050/2-047	PRIOR FILING DATE: 2001-03-20 NUMBER OF SEQ ID NOS: 805 SOFTWARE: Patentin Ver. 2.1 SOFTWARE: Patentin Ver. 2.1 TYPE: DNA ORGANISM: Homo sapiens FEATURE: NAME/KEY: modified_base LOCATION: (1766)	0.459 0.459 h Similarity 61.8%; Pred. No. 54; Conservative 0; Mismatc 1.477ACACTCTGATAACTACTCGAAGA	139 AIAIAACITCAGGATGAAAGGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC  61 GAACCCTGCTTCCGGGATGAAAGGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC  199 GAACCCTGTTTCGTGAAAAAATGCTAATTTCAATAAATCTTCCTGCCCACCATCTAC  121 TTCATCATCTTCTTGACTGGCATAGTGCAATGGATGGATG	181 CAGAAGAAGCTAAGGAGCATGACGAGCAGGCTGCAGCTGTCAGTGGCTGACCTGCAGCTGACTGA	
	361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCAGGCCACCAACAGTCAA 420	541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTCAA 600  664 GATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGTTGTTCCAG 723  601 TTCCAGCATATAATGGTGGGTCTCATCCTGCCGGGCATCGTTGTGGTTGTTCCAG 723  724 TTTCAGCACATATAATGGTTGCCTTATCCTGCTGGTATTGTCTGCTGCTATTGC 783  661 ATCATCATCTAAGCTGTCACACTCCAAGGGCCACAGAAGGCCCTCAAGACG 720  784 ATTACCATCTCTAAGCTGTCACACTCCCAAGGGCCACAGAAGCCCTCAAGACC 783	ACAGTCATCCTCATCCTAGCTTTTTTGCCTGCTGCCTATTATGTGGGGATCAGC 78	841 CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 900	961 AGGAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGGGGGGGG	1081 AATATATATATATATATATATATATATATATATATATA

```
CORRESPONDENCE ADDRESS:
ADDRESSE: Genentech, Inc.
STREET: 1 DNA Way
CITY: South San Francisco
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 415/952-9881
TELEX: 910/311-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: Nucleic Acid
STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-104-063-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ଟ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1365
                                                                                                                                                                                                                                                                                                                                                 cacaacidearrrccarcaccaacccracrrrcrrccacrerrrrancrea
                                                                                                                                                                                                                                                                                                                                                                                                      1083
                                                                                                                                                                                                                                                                                                                                                                                                                                  1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1426 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA 1477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1196 GACTITITITIATACGATAAATAACTTTTTTTAAGTTACACATTTTCAGATATAAAAG 1255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAG 1320
                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                             960
                                          900
                                                                                                660
                                                                                                                         783
                                                                                                                                                     720
                                                                                                                                                                                843
                                                                                                                                                                                                          780
                                                                                                                                                                                                                                    903
                                                                                                                                                                                                                                                                                           963
                                                                    723
                ------TCAGTGAGGCA 663
                                                                                                                                                                     crerarecrirectregaeceaaarrraaaecrerereceaecaecaecaecrerere
                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1144 riccacreagricreagricricaagrirricacreegeraa-----cacagareraaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTAGITITIGIGAGGITIGACTIAATITIAIAAATAIATIGITITITIGITITGATITICAIGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITAGITITITIGIGAAGITITAATIGACITATITATA----TAAAITITITITIGITITGATAT
                                                                                                                                                                                                          ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCTGCCATATTATGTGGGGGATCAGC
                                                                                                                                                                                                                                                               ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGGAGCATTGTG
                                                                                                                                                                                                                                                                                                                    CACAAGIGGATCTCCATCAGAGGCCCTCGCCTTCCACIGITGCCIGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCAGAGGGTCCACCTCTAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081 AATATATATATATATATATAAAAAAACTTTTTATGTTACACATTTTCCAGATATAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1366 TGATGTGTCTAGGCAGGACCTGTGCCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG
                                                                                                                                                                                                                         844 ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGC
                                                                                                                                                                                                                                                                                  CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                            GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                                               rindascacardarissindsconnarconscinsinarion carcinotration
                                                                                                TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTAGAAATGATCCCCAGCTGTTTATGCATA 1508
 RESULT 14
US-09-104-063-3
US-09-104-063-3
; Sequence 3, Application US/09104063
; Patent No. US20020168356A1
; GENERAL INFORMATION:
; APPLICANT: Lee, James
; APPLICANT: Wood, William I.
; TITLE OF INVENTION: PF4A Receptors
; NUMBER OF SEQUENCES: 6
                                                                                                                                                                                                                                                                                                                                                                                                      1024
                                                                                                                                                                                                                                                                                                                                                                                                                                   196
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321
                                            541
                                                                      664
                                                                                                501
                                                                                                                         724
                                                                                                                                                     661
                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                           904
                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                 964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1478
                                                                                                                                                                                                                                                                                                                                                                             901
                                                                Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                    ò
                                                                                             à
                                                                                                                   g
                                                                                                                                                  à
                                                                                                                                                                              g
                                                                                                                                                                                                          ठ
                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
υ,
.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AACTICCIAIGCAAGGCAGICCAIGICAICIACACAGICAACCICIACAGCAGIGICCIC 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              106 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             166 GAACCCTGTTTCCGTGAAAAAAGCTAATTTTCAATAAAATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      346 crcririgicarcacecrirecerreseses as consecretes as consecretes and consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes as consecretes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TICATCATCITCITGACTGCCATAGTCGCCATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGAAGAAACTGAGAAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CICITIGICALCACACICCCCTICIGGGCAGIIGAIGCCAIGGCIGACIGGIACIIIGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   41; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 55.1%; Score 933.4; DB 9; Best Local Similarity 81.8%; Pred. No. 2.2e-236; Matches 1154; Conservative 0; Mismatches 216;
COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WithParin (Geneticch)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/104,063
FILING DATE: 24-June-1998
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/701265
FILING DATE: 2-AUG-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/64228
FILING DATE: 06-JUN-1996
PRIOR APPLICATION NUMBER: 08/076093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION NUMBER: 07/81076
FILING DATE: 19-DEC-1991
APPLICATION NUMBER: 07/81076
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, RICHARD B.
REGISTRATION NUMBER: 9070652C2
FILING DATE: 18-DEC-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, RICHARD B.
RESISTRATION NUMBER: 9070652C2
TELECOMMUNICATION INFORMATION:
TELERRENCE/DOCKET NUMBER: 9070652C2
TELECOMMUNICATION INFORMATION:
TELERCOMMUNICATION INFORMATION:
TELERCOMMUNICATION INFORMATION:
TELERCOMMUNICATION INFORMATION:
```

```
55.1%;
81.8%;
                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 81.8
Matches 1154; Conservative
                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Homo sapien
                                                                                                                                                                                                                                                                                                              LENGTH: 1737
                                                                                                                                                                                                                                                                                                                                                 US-10-666-689-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              원
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CICTATECTITICTIGGAGCCAAATTTAAAACCTCTGCCCAGCACGCACTCACCTCTGTG 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGGAAAAGCGGGGTGGACACTCTTCCGTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCAGAGGCCCCAGCCTCAGGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTT 1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Acreaccantaridracacrititariccriteringaritririci-----criteritric 1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1111 rccacrdadrcrdagrcrrcaagrrrrcacrccagcraa-----cacagargraaa 1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1163 GACTÍTITITIATACGATAAATAACTTÍTÍTÍTAAGÍTÁCACÁTTÍTÍTCAGATATAAAAG 1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA 1444
                                     480
                                                                                      540
                                                                                                                                                                                     99
                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                             930
                                                                                                                                                                                                                                                                                                                                                                                                            990
                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                            checheacharnecesachrearchreceace 630
                                                                                                                                      900
                                                                                                                                                              690
                                                                                                                                                                                                                                                            ATTATCATCTCCAAGCTGTCACACTCCAAGGCCCACAGAAGCGCAAGGCCCTCAAGACC 810
                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                              870
                                                                                                                                                                                                                                                                                                                                                                                     CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 900
                                                                                                                                                                                                             691 TTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGC 750
                                                                                                                                                                                                                                     ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCCACAGAAGCGCAAAGGCCCTCAAGACG 720
526 AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC
                                                                                     481 CTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGGGGGACATCAGGGG
                                                                                                                                     GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAA
                                                                                                                                                      781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGGAAGGAGGACTGGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                        CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081 AATATATATATATATAAAAAACTTTTTTATGTTACACATTTTCCAGATATAAGAG
                                                                                                                                                                                    TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTTACTGC
                                                                                                                                                                                                                                                                                                 871 ATGACTCCTTCATCCTCCTGGAAATCATCAAGGAAGGAGGTGTGAGTTTGAGAACACTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGATGTGTGTGTGGGGGGGGGGGGGGGTTGTTAGTTGCTGTTGTTGTTGTGTGGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACTGTAGAACTGTAGAAGAAGAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA
                                                                                                                                                                                                                                                                                     ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGGCTGCCATATTATGTGGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          deragaardareeedaeererrareeara 1475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1051
             466
                                    421
                                                                                                           586
                                                                                                                                    541
                                                                                                                                                             631
                                                                                                                                                                                    601
                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                            751
                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                             811
                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                           931
                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                           991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1393
                                                          g
                                                                                                       g
                                   \overset{\diamond}{\delta}
                                                                                 ò
                                                                                                                                  ò
                                                                                                                                                     d
                                                                                                                                                                           ð
                                                                                                                                                                                                         셤
                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    임
                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

RESULT

ū, 120 225 180 285 240 345 106 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG 165 300 405 360 465 420 480 585 630 900 069 9 Sequence 3, Application US/1066689
| Publication No. US20040037830A1
| GENERAL INFORMATION:
| APPLICANT: Wood, William I.
| TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and
| TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and
| TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and
| TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and
| TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and
| TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and
| TITLE OF INVENTION: HUMBER: US 09/104,063
| PRIOR APPLICATION NUMBER: US 09/104,063
| PRIOR FILING DATE: 1996-06-22
| PRIOR PELING DATE: 1996-06-12
| PRIOR PELING DATE: 1993-06-11
| PRIOR FILING DATE: 1991-03-29
| NUMBER OF SEQ ID NOS: 6
| SEQ ID NOS: 6 361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCCAACAGTCAA GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 166 GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC 121 ITCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGTTAC TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTAGTCATCCTGGTCATGGGTAC 181 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 346 CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG 406 AACTICCTAIGCAAGGCAGTCCAIGTCATCTACACAGCAACCTCTACAGCAGTGTCTC CTGCTGACTATTCCCGACTTCATCTTTGCCAACG-------TCAGTGAGGCA GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTCAA GATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGCGTGGTTGTGTTCTGG 1 ATATACACTICTGATAACTACTCTGAAGAGTGGGGTCTGGAGACTATGACTCCAACAAG 286 cagaagaachgagaagcangacgacaagacagchccagchccachgrcaghgacchc AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC 526 AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC Gaps Length 1737; Indels DB 13; Score 933.4; DB 13; Pred. No. 2.2e-236; 0; Mismatches 216; 541 631  $\overset{\circ}{\circ}$ 

```
CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960
                                                                                       CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTTTCCACTGTTGCCTGAACCCCATC 900
      750
           ATCATCATCTCTCTAAGCTGTCACACTCCAAGGGCCACAGAAGCGCAAGGCCCTCAAGACG 720
                        ATCGACTCCTTCATCCTTTTGGGGGTCATCAAGGATGTGACTTCGAGAGGATTGTG 840
999
1051
            661
                  751
                                     781
                                           871
                                                  841
                                                        931
                                                              901
                                                                     991
                                                                           961
                                                                                                                                                     2 8
                                           8 8 8
                                                             8 8 8
                                                                                8 6 8
                                                                                                  8 8 8
                                                                                                                     8 6 8
                                                                                                                                        8 8
                                                                                                                                                                   8
8 6
           8 &
                        ò
                             d
                                   ò
```

Search completed: May 17, 2004, 22:14:17 Job time : 840.19 secs

```
112000
10201
10201
10201
10201
10201
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
10301
532.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                 524.8
524.8
520.8
520.8
510.6
510.2
502.4
491.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 1
BX397685
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
 υ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        υ
                                                                                                                                                                                                                                                                                                                      υ
                                                                                                                                                                                                                                                                                                                                                                                             υ
                                                                                             May 17, 2004, 05:50:31; Search time 4889.52 Seconds (without alignments) 10345.919 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                     1 atatacacttctgataacta.......taaaagtcaatgataaactt 1694
                                                                                                                                                                                                                                                                                         55026578
             GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                          27513289 seqs, 14931090276 residues
                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                      using sw model
                                                                                                                                                                                                               IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     em_gss_hum:*
em_gss_hum:*
em_gss_inv::*
em_gss_inv::*
em_gss_fur::*
em_gss_fur::*
em_gss_fur::*
em_gss_fur::*
em_gss_fur::*
em_gss_fur::*
em_gss_fur::*
em_gss_fur::*
em_gss_fur::*
em_gss_fur::*
em_gss_fur::*
em_gss_fur::*
                                                                                                                                                                                                                                                                                                                                                                                                                                1: em estba:*
2: em esthum:*
4: em esthum:*
5: em estlu::*
5: em estlu::*
7: em estpl::*
9: gb estl::*
11: gb est2::*
11: gb est2::*
12: gb est3:*
13: gb est4::*
14: em estfun:*
15: em estfun:*
                                                                                                                                                                                                                                                                                                                   Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                         US-09-367-052-7
1694
                                                                     OM nucleic - nucleic search,
                                                                                                                                                                                                                                                                                                                                                                                                                       EST:*
                                                                                                                                                           Title:
Perfect score:
                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                          Searched:
                                                                                                                                                                                        Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                       Database
                                                                                                  Run on:
```

BX358346 BX358346
BX35253 BX353346
BX45259 AGENCOURT
BX33253 BX45253
BX462627
BX418230
BX418230
BX418230
BX418230
BX42182
BX442182
BX44324
BX44324
BX44324
BX44324
BX100790 601753725
B176620 6033915
BX44328 BX444228
BX100790 601753725
B1766229 603149139
BY310690 6033-58
BY310690 6033-58
BY310690 6033-58
BY310690 6033-58
BY310690 6033-58
BY310690 6033-81
BX328340 BX328340
CD3822174412 60200URT
BG174412 60200URT
BG174412 60200URT
BG174412 60200URT
BG174412 60200URT
BX358340 BX358340
CA454255 AGENCOURT
BX358340 BX358340
CA454256 AGENCOURT
BX358340 BX358340
CA454256 AGENCOURT
BX358340 BX358340
BX358340 BX358340
CA454256 AGENCOURT
BG174412 6020343328
BG37362 602641334
BG17365 602614106
BE6749 UULVIOCO339

BX358346 BX358346 BX35253 BX418250 BX462627 BX462627 BX462649 BX462182 BX462247 CD251331 BX162229 BX192269 BX192269 BX192269 BX1181228 BX1181228 BX118128 BX118128 BX118128 BX118128 BX118128 BX118128 BX118128 BX118128 BX397684 CD389217 BX397684 CD389217 BX397684 CD389217 BX397684 CD389217 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397684 BX397685 BX397684 BX397684 BX397684 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX397685 BX

BX418529 BX418529 BU146456 AGENCOURT BM051973 603638877 CB985366 AGENCOURT

ALIGNMENTS

BX397685

ON BX397685

ON BX397685

IOSIGATION ON BX397685

Clone CSODIO41YO13 5-PRIME, mRNA sequence.

BX397685.1 GI:30621359

EXT DISCOURTED Homo saplens CDNA

BX397685.2 GI:30621359

EXT DISCOURTED Homo saplens CDNA

Homo saplens

Homo saplens

Homo saplens

Extraction Butheria, Primates; Catarrhini; Hominidae; Homo.

Extraction Butheria, Primates; Catarrhini; Hominidae; Homo.

Discoursed: Gruber.C., Jessee, J. and Polayes, D.

Full-length CDNA libraries and normalization

Li, W.B., Gruber.C., Jessee, J. and Polayes, D.

Full-length CDNA libraries and normalization

Contact: Genoscope

BP 191 91006 EXTNX redex - France

Email: seqrefagenoscope.ons.fr, Web: www.genoscope.cns.fr

Library was constructed by Life Technologies, a division of

Invitrogen. This sequence belongs to sequence cluster 1272.r For

more information about this cluster, see

http://www.genoscope.cns.fr/

cgi.bin/cluster.cgi/seq=CGODIOHAHO7QPl&cluster=1272.r. Contact:
Feng Liang Email: ifiangelifetech.com URL:
Feng Liang Email: ifiangelifetech.com URL:
Feng Liang Email: ifiangelifetech.com URL:
Feng Liang Email: ifiangelifetech.com URL:
Feng Liang Email: ifiangelifetech.com URL:
Feng Liang Email: ifiangelifetech.com URL:
Feng Liang Email: ifiangelifetech.com URL:
Feng Liang Email: ifiangelifetech.com URL:
Feng Liang Email in Fengelifetech.com URL:
Feng Liang Email: ifiangelifetech.com URL:
Feng Liang Email: Fengelifetech.com URL:
Feng Liang Email: Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengelifetech.com URL:
Fengel

BX397685 BX397685 BX396365 BX396365 BX421287 BX421287 BX421511 BX421511

BX397685 BX396365 BX421287 BX421511

13 13 13

1091 1201 1201 1201

41.9 41.0 40.9

709.4 694.8 692 688.6

Description

SUMMARIES

Query Match Length DB

Score

Result No.

898

```
Contact: Genoscope,
Contact: Genoscope,
Genoscope - Centrer National de Sequencage
Genoscope - Centrer Cedex - France
Brail: seqrefégenoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi.bin/cluster.cgi?seq-CS0D1015DF10QP1&cluster=1272.r. Contact:
Feng Liang Email: fliang@lifetech.com URL:
http://tullength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CS0DI015DF10QP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                BX396365
BX396365 Homo sapiens PLACENTA COT 25-NORWALIZED Homo sapiens CDNA clone CSODIO15YL20 5-PRIME, mRNA sequence.
                                                                                                                                                                                                 ICCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCA 958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 TICATCATCITCITGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180
  902 GCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTTGAGAACACTG 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                134 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /tissue type="PIACENTA COT 25-NORMALIZED"
/clone_lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="lst strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR v
sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 1201)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTYTTCCACTGTTGTTTGAACCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        194 GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1201;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ch 41.0%; Score 694.8; DB 13; Length I Similarity 83.9%; Pred. No. 5.9e-104; 842; Conservative 7; Mismatches 134; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Li.W.B., Gruber, C., Jessee, J. and Polayes, D. Full-length cDNA libraries and normalization Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODI015YL20"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BX396365.1 GI:30609085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                    TGAGCAGAGG 1091
                                                                                                                                                                                                                                                                    TGAGCAGAGG 968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BX396365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 842
                                                                                                                                                          668
                                                                                                                                                                                                                                                                    959
                                                                                                          962
                                                        839
                                                                                                                                                                                                                                                                                                                       1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 2
BX396365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                     à
                                                                                         g
                                                                                                                                                    ò
                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                     'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                  /mol_type="mcNa"
/db_xtef="taxon:9666"
/db_xtef="taxon:9666"
/clone="CSODIO417013"
/tissue type="Pid-xentra"
/clone_Tib="Homo sapiens Pid-xentra COT 25-NORWALIZED"
/clone_Tib="Homo sapiens Pid-xentra COT 25-NORWALIZED"
/note="let strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and BCOR V
sites of the pCMVSFORT 6 vector. Library was normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          136 ATATACACTTCAGATAACTACACGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               196 GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCATCATCTTCTTGACTGGCATAGTCGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    256 TCCATCATCATCTTATACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   496 ATCTTGGCCTTCATCATCAGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAG 555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         316 CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 376 CICITIGICATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         556 AGGCCAAGGAGCTGTTGGCTGAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC 615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TICCAGCATAIAAIGGIGGICICAICCIGCCCGGCAICGICAICCICICCIGIIACIGC 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          782 ATTATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACC 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | GCATCGACCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTG 838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 616 CTGCTGACTATTCCCGACTTCATCTTTGCCAACGTCAGTGANGGCA------- 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        842 ACAGICAICAICAICCIGGGCITICIIICGCCIGIIKGGCIGCCIIACIACAIIGGGAICA 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACAGTCATCCTCATCCT-AGCTTTCTTTGCCTGCT-GGCTGCCATATTATGTGGGGATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                     16;
                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match
Best Local Similarity 85.4%; Pred. No. 2.4e-106;
Matches 828; Conservative 2; Mismatches 124; Indels 16;
     : CS0DI041AH07QP1.
Avenue Genoscope sequence ID Location/Qualifiers
                                                                              /organism="Homo sapiens"
Faraday
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                779
                            FEATURES
                                                                                                                                                                                                                                                                                                                                             ORIGIN
```

g

ò g ò g ò Д ઠે ВÞ 8 q à g ઠે

ઠ d ò g ò g ð ઠે g ò g à ς, ..

9

253

us-09-367-052-7.rst

```
643 GAIGACAGATATATCIGTGACCGCTTCTACCCCAATGACTTGTGGGTGGTTGTGTTTCCAG 702
      Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BRail: sequence observation a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi.bin/Cluster.cgi?seq=CSODG004AD05QP1&cluster=1272.r. Contact :
Feng Liang Email: fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faradday Avenue Genoscope sequence ID : CSODG004AD05QP1.
                                                                                                                             Contact
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  118 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTTCCATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              238 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CICITIGECAICACGCIICCCIICIGECAGIIGALGCCGIGGCAAACIGGIACIITGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         478 Arccrescerrearcasteresacestracinescencerecaceaceaceaceaceae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATGACAGGTACATCTGTGACCGCCTTTACCCCCGATAGCCTGTGGATGGTGTTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601 ITCCAGCATATAATGGTGGGTCTCATCCTGCCGGCATCGTCATCCTCTCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           178 GAACCCFGTTTCCCFGAAGAAATCCFAATTTCAATAAAATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301 AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    418 AACTICCTATGCAAGGCAGICCAIGTCAICTACACAGICAACCICTACAGCAGIGICTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGCCAAGGAAACTGCTGGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1201;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ery Match 40.9%; Score 692; DB 13; Length 1 st Local Similarity 76.6%; Pred. No. 1.7e-103; tches 847; Conservative 43; Mismatches 193; Indels
Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                               FEATURES
 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BX421287

1201 bp mRNA linear EST 15-MAY-2003

BX421287 Homo sapiens B CELLS (RAMOS CELL LINE) Homo sapiens cDNA clone CSODG004YG09 5-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .017 CICTAIGCTITICCTIGGRGCAAATITAAAACTCT---GCCARCACGCACTCACCTCTGTT 1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                              360
                                                                                                                                                                                               420
                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                             658
                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                            gardacadarararcierdacederreraceceaareacridiogeregricaretreredag 718
                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCCATC 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CICTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960
 240
                               373
                                                                300
                                                                                             433
                                                                                                                                                                493
                                                                                                                                                                                                                              553
                                                                                                                                                                                                                                                                                               613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACG 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
1. (bases 1 to 1201)
11, W.B., Gruber, Gruber, J., and Polayes, D.
Full-length cDNA libraries and normalization
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Arccacrecricarecrecresaareareaseaasearereaerreaeaacaerere
                    CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC
                                                                                     CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG
                                                                                                                              301 AAATTITIGIGIAAAGGCIGICCATATCATCIACACTGICAACCICTACAGCAGCGTICTC
                                                                                                                                                     ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                            494 Arcergacerrearcagereragacegeraceraceracearcaregecateag
                                                                                                                                                                                                                                                               AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                        AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC
                                                                                                                                                                                                                                                                                                                              CTGCTGACTATTCCCGACTTCATCTTTGCCAACG------TCAGTAGGCA
                                                                                                                                                                                                                                                                                                                                                                                              GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          irrcadcacarcarderredcerrarecrederarrerearcrerererererer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACAGICAICCICAICCIAGCITICTITICCIGCIGCIGCCAIAIIAIGIGGGGAICAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           acadicarcercarcerdecrirerredecrerredecreerracracratedearcaec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TICCAGCATATAATGGIGGGICICATCCIGCCCGGCATCGICAICCICTCCIGITACIGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGG 1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BX421287
BX421287.1 GI:30766068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            959
                                                                                                                                                                                                                                                                                               554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           899
                                                                                                                                                                                                                                                                                                                                                                                                                              629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                434
                                 314
                                                                241
                                                                                             374
                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                             614
                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
BX421287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                      P
                                                                                                                                                                                                                                                                                                                                                                                                                       рp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                        a
                                                                                   원 상
                                                                                                                                                         g
                                                                                                                                                                                             S G
                                                                                                                                                                                                                                                       8 8 8
                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठे
                                                            8
```

4

120 237 180

177

60

240

357 300 417 360 477 420 537 480 597

297

540

642

600

/note="Vector: pCMVSPORT_6; lst strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and BcoRV sites of the pCMVSPORT 6 vector. Library was not normalized."	Query Match Best Local Similarity 84.8%; Pred. No. 6.1e-103; Matches 792; Conservative 6; Mismatches 121; Indels 15; Gaps 2;	OY 1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG 60	OY 61 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120	Qy 121 TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGCTGGTCATGGGTTAC 180	Qy         181 CAGAAGAAGGTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC         240	OY 241 CTCTTTGTCATCACCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 300 182 CTCTTTGTCATCCCTTCTGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG 441	OY 301 AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360		481 CICCIGACIAITCCGACTICATCITIGCGACGTCGCGGGGGGGGGG	541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTCAA	OY 601 TICCAGCATATAAIGGTGGGTCTCAICCTGCCGGCAICGTCATCCTCCTGTTACTGC 660	QY 661 ATCATCATCTAAGCTGTCACACTCCAAGGGCCACAGAAGCGCAAGGCCCTCAAGACG 720	Qy 721 ACAGICATCCTAGCTTTCTTTGCCTGGCTGCCATAITATGTGGGGATCAGC 780	OY 781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 840	Qy 841 CACAAGTGGATCTCCATCACAGAGGCCTTGGTTCTTCCACTGTTGCCTGAACCCCATC 900	Oy 901 CTCTATGCCTTCCTCGGGCCAAGTTCAAAAGCT 934
	QY 721 ACAGTCATCCTCATCCTAGCTTTCTTTGCTGCTGCTCCCATATTATGTGGGGATCAGC 780	OY 781 ATCGACTCCTTCATCCTTTGGGGGTCATCAAGCAAGGATGTGGAGAGCATTGTG 840	Qy 841 CACAAGTGGATCTCCATCACAGGGCCCTGGCCTTCTTCCACTGTTGCCTGAACCCCATC 900	QY 901 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960	OY 961 AGCAGAGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGGGGACACTCTTCCGTC 1020	QY 1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080  Db 1115 GTTTGGTTTWATTTTHYCCACYAAAAADKTAARATTTTTTTTTTTTAAAAHWTTTTTTTTTT 1174	Oy 1081 AATATATATATATGATAAAGAA 1106  Db 1175 TWAATTTTTDWWAARARGWMAAWKKA 1200	RESULT 4 BX421511 BX421511 LOCUS DEFINITION BX421511 Homo sapiens B CELLS (RAMOS CELL LINE) Homo sapiens cDNA Clone CSODG007YM12 5-PRIME, mRNA sequence.	VERSION BX421511.1 GI:30651194 KEYWORDS EST. SOURCE SPICES (human) ORGANISM Homo sapiens (human)	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  REFERENCE I (bases 1 to 1201)  AUTHORS Li,W.B. Gruber,C., Jessee,J. and Polayes,D.  TITHE FAIL-IDARTH (NA INTERIOR ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTRY OF TAXED ENTR	JOURNAL Unpublished (2001) COMMENT Contact: Genoscope Genoscope - Centre National de Sequencage RP 191 91006 FUPY Codex - France	Email: segref@genoscope.cns.fr, Web : www.genoscope.cns.fr Library was constructed by Life Technologies, a division of Invitrogent. This sequence belongs to sequence cluster 1272.r For	http://www.genoscope.com.fr/ cgi-bin/cluster.cgi?seq=cS0DG007BG06QP1&cluster=1272.r. Contact : Feng Liang Email : fliang@lifete.ch.com URL : http://fulllength.invirroqen.com/ InVitroGen Corporation 1600		/organisme"Homo sapiens" /mol_type="mmys" /db_xref="teaxon:9606" /clone="CSODG007YM.2"	/tissue type="B CELLS (RAMOS CELL LINE)" /cell line="RAMOS CELL LINE" /clone_lib="Homo sapiens B CELLS (RAMOS CELL LINE)"

us-09-367-052-7.rst

```
BX358346

1201 bp mRNA linear EST 05-MAY-2003
BX356346 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens cDNA
clone CSODI036Y17 5-PRIME, mRNA sequence.
BX358346.1 GI:30370215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Genoscope
Genoscope - Centre National de Sequencage
Genoscope - Centre Cata - France
Bmail: seqrefégenoscope. Cns.fr, Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. Contact: Feng Liang Bmail: filangellifetech.com URL:
http://fulllength.invitrogen.com/ Invitrogen.Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODIO36CE09QPI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'n
                                                            503
                                                                                                               480
                                                                                                                                                                        563
                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                     623
                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                 683
                                                                                                                                                                                                                                                                                                                                                                                                                                                          629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           744 CAICAICAICTICTAAGCIGTCACACTCCAAGGGGCCACCCAGAAACGCCCACCTCAA 803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryoffan, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1201)

1i, W.B., Gruber, C., Jessee, J. and Polayes, D.

Full-length cDNA libraries and normalization

Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80
                                                                                                                                                                                                                                                                                                                                                                                                                                                    541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAA
                                                                                                                                                                                                                                                                                                                                                                         624 GAIGACAGGTACATCTGTGACCGCCTTTACCCCGGATAGCCTGTGGATGGTGGTGTTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATCATCATCTCTAAGCTGTCACACTCCAAGGG---CCACCAGAAGCGCAAGGCCCTCAA
504 AGGCCAAGGAAACTGCTGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCTTC
                                                                                                                                                                                                                              1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCCAACAAG
                                                                                                               421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 40.2%; Score 681.4; DB 13; Length 1201; Best Local Similarity 85.3%; Pred. No. 9.1e-102; Matches 783; Conservative 4; Mismatches 116; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACGACAG 724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                804 GACGACAG 811
                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 6
BX358346
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                             ď
                                                                                                ò
                                                                                                                                                            g
                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                         음
                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                 Mus musculus (house mouse)

Mus musculus (butteria)

Bukaryota; Metazaa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryota; Metazaa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

I (bases 1 to 906)

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbe-remail.inh.gov

Tissue Procurement: The Cepko Laboratory

CONA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLAM14130 row: c column: 07

High quality sequence stop: 668.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Mus musculus"
/mol_type="mRNA"
/strain="FVBN"
/strain="FVBN"
/db_xref="taxon:10090"
/db_xref="taxon:10090"
/db_host="MnGE:652663"
/lab_host="MnIO E(T1 phage-resistant)"
/clone lib="NOI E(GAP Co24"
/note="Organ: colon; Vector: pCMV-SPORT6; Site_1: Not1;
Site_2: Sall; Cloned unidirectionally. Primer: Oligo dT.
Site_a: Sall; cloned unidirectionally. Primer: Oligo dT.
Site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon site and taxon sit
                                                                                                                     906 bp mRNA linear EST 13-SEP-2002
AGENCOURT 10154335 NCI_CGAP_Co24 Mus musculus cDNA clone
PMAGE:6229663 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TICATCATCITCITGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        264 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         144 GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           204 TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CICTITIETCATCACACICCCCTICIGGGCAGTIGATGCCATGGCTGACTGGTACTITGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGAAGAAGCTAAGGAGCATGACGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 AAATTITIGIGIAAGGCIGICCATAICAICIACACTGICAACCICTACAGCAGCGITCIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    884 AAATTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      40.4%; Score 684; DB 13; Length 906; ilarity 98.1%; Pred. No. 3.6e-102; Conservative 0; Mismatches 10; Indels
   1027 CTCTATGCTTTCYTTGGAGCAAATTTAAAACTCT 1060
                                                                                                                                                                                                                           BU523025
BU523025.1 GI:22833475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 714; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      324
                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                       LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                 RESULT 5
BU523025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
```

ORIGIN

g δ g ò ద  $\delta$ 셤 8 g 8 рę

(MGC)

```
/tissue_type="hippocampus"
/lab_host="hippocampus"
/clone_lib="NIH_MGC_124"
/clone_lib="NIH_MGC_124"
/note="Organ: Drain; Vector: pCMV-SPORT6; Site_1: ECORV
(destroyed); Site_2: Not1; RNA source male hippocampus,
age 27. Library is oligo-dr primed and directionally
cloned (ECORV site is destroyed upon cloning). Average
insert size 1.4 kb, insert size range 0.9-4 kb. Library is
normalized and enriched for full-length clones and was
constructed by C. Gruber (Invitrogen). Research Genetics
tracking code 012."
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 1051)
                                                                  1. .1051
/organism="Homo sapiens"
/mol_type="mann"
/db_xref="taxon:9606"
/clone="laAgE:5726963"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local
Matches 82
                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  974 CACAAGIGGATITCCATCACGGAGGCCCTAGCTITCTTCCACTGTIGTYTGAA-CCCATC 1032
                                                                                                                                                      180
  207
                                                    120
                                                                                                      267
                                                                                                                                                                                                          327
                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301 AAATTITIGIGIAAGGCIGICCATAICAICIACACIGICAACCICIACAGCAGCGIICIC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             508 Arccrescerrearcagreresceraceracerescearreresceaescaceaesages 567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                            328 CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC 387
                                                                                                                                                                                                                                                                                                                                                                                                                cremmentalescricericines estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed estructed e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 568 AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC 627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        crecreactarreceacricarerreceacereacereacerea ------neeca 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTATTGC 793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCCTGCCATATTATGTGGGGATCAGC 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                    268 TCCATCATCTTCTTAACTGGCATTGTGGCAATGGATTGGTCATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCGACTCCTTCATCCTTTGGGAGTCATCAAGGAAGGATGTGACTTCGAGAGCATTGTG
ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG
                                                                                   TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACTICCIAIGCAAGGCAGICCAIGICAICIACACAGCACCICIACAGCAGGTGTCCIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u> AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            914 ATGACTCCTTCATCCTCCTGGAAATCATCAACCAAGGGTGTGAGTTTGAGAACACTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841 CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                          CAGAAGAAGTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGCTTACTGC
                                                  GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           854 ACAGICAICCICAICCIGGCIIIICIICGCCIGITIGGCIGCCIIACIACAINGGGAICAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |||||| : |||:| |:|
CTCTATTSTTTCYTGGRG 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901 CTCTATGCCTTCCTCGGG 918
                                                                                                                                                      121
148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                  61
                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                  388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                        g
                                                                                                                                     ò
                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                    क क
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                               ò
                                                                                                                                                                                                                                                                                                                                                        8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
```

```
'n
                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    382
                                                                                                                                        83 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGGCTTATGACTCCATGAAG 142
                                                                                                                                                                                                                                    202
                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                              262
                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                     322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            502
                                                                                                                                                                                        GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                               143 GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3.3 CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            383 AACTICCTATGCAAGGCAGTCCATGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTC
                                                                                              1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                      TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                              203 recarcarerranderescarnersseanassarissaresrecesseres de describilitas
                                                                                                                                                                                                                                                                                                                                                                                                                          263 cagaagaaacigagaagcaigacggachagiacaggcigcaccigicagigggcco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CICITIGICATCACACTCCCCTICTGGGCAGITGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACTTC
atch 39.7%; Score 672.2; DB 12; Length 1051; 2al Similarity 83.9%; Pred. No. 3e-100; 825; Conservative 0; Mismatches 138; Indels 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

562

AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC

503

BM545259 1051 bp mRNA linear EST 20-FEB-2002 AGENCOURT 6497171 NIH\_MGC\_124 Homo saplens cDNA clone IMAGE:5726963 5', mRNA Sequence.
BM542259

BM545259.1 GI:18777197 EST. sapiens (human)

Homo sapiens Homo sapiens

VERSION KEYWORDS SOURCE ORGANISM

ACCESSION

RESULT 7 BMS45259 LOCUS DEFINITION

~

8 8

8 6 8 6

8 6 8 6 8 6 8 6

፟ ద ò 셤

```
note="1st strand cDNA was primed with a NotI-oligo(dT) zrimer. Five prime end enriched, double-strand cDNA was ligested with Not I and cloned into the Not I and ECOR Vites of the pCMVSFORI 6 vector. Library was normalized.
                                                                                                                                                                                                                                                                                                                                                                                GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            211 GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     271 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGAAGAAACTGAGAAGCATGACGAACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cremination of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301 AAATTTTTGTGTAAGGGTGTCCATATCATCTACACTGTCAACCTCTACAGCGGGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGGTGGTTGTGTGTCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTATCATCTCCAACCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGAGTTTGAGAACACTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACAAGIGGATTTCCATCACCGAGGCCCTAGCTTTCTT-CACTGTTGTCTGAA-CCCATC
                                                                                                                                                                                                                                                                                                                                  ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TICATCATCITCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----TCAGTANGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TICCAGGATATAATGGTGGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       introaccarcandentescentarecreectestranerearcanecreteraries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACAGICATCCICATCCIAGCITTCCITTGCCIGCTGCCIACTATTATGTGGGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTKGGCTGCCTTACTACATTGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u> AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC</u>
                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                      18;
                                                                                                                                                                                                    DB 13; Length 1201;
                                                                                                                                                                                                39.4%; Score 666.6; DB 13; Length larity 82.6%; Pred. No. 2.4e-99; Conservative 6; Mismatches 146; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      primer. Fi
                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                      808;
                                                                                                                                                                                                       Query Match
Best Local S:
Matches 808
                                                                                                                                                                                                                                                                                                                                         -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 8
                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>6</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ૪
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EST 02-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201 bp mRNA linear EST 02-MAY-200:
BX353253 Homo sapiens NEUROBLASTOMA COT 25-NORMALIZED Homo sapiens
CDNA clone CSODC003YG03 5-PRIME, mRNA sequence.
BX353253
                                                                                                                                                                                                                                                                      099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      868
                                                                      607
                                                                                                                                        600
                                                                                                                                                                                                    667
                                                                                                                                                                                                                                                                                                                                     727
                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="CSODC003YG03"
/tissue_type="NEUROBLASTOMA COT 25-NORMALIZED"
/clone_lib="Homo sapiens NEUROBLASTOMA COT 25-NORMALIZED"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens sukaryoza; Chordata; Craniata; Vertebrata; Euteleostomi; Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1201) Lid, W.B., Gauber, C., Jessee, J. and Polayes, D. Full-length cDNA libraries and normalization Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Genogeope Genoral de Sequencage Genoscope - Centre National de Sequencage Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - France BP 191 91006 EVRY cedex - France BP 191 91006 EVRY cedex - France BP 191 91006 EVRY cedex - France BP 191 91006 EVRY cedex - France BP 191 91006 EVRY cedex - France BP 191 91006 EVRY cedex - France Intervent of the Sequence BP 191 1910 Contact to Sequence Contact to Sequence Information about this cluster, see http://www.genoscope.cns.fr/cgibin/cluster.cgipseq=CSCODCO03AD02QP1&cluster=1272.r. Contact to Feng Liang Email : fliang@lifetech.com URL : Contact to http://fullengfh.invitrogen.com/ Invitroden Corporation 1600 Faraday Avenue Genoscope sequence ID : CSODCO03AD02QP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCATCATCTCTAAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA-GGATGTGACTTCGAGAGCATTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCACAAGTGGATCTCCATCACAGA-GGCCCTCGCCTTCCTTCCACTGTTGCCTGAACCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     deachagical de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra del la contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTCTATGCCTTTCCTTGGAGCCCCAATTTAAAACCTCTTGCCCAGACGCACTCCACTC
                                                                                                                                        GATGACAGGTACATCTGTGACCGCCTTTACCCCCGATAGCCTGTGGATGGTGGTGTTCAA
                                                                                                                                                                                         GATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGTTGTTGTTGTTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTCTATGCCTT---CCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTC
                                                                                                                                                                                                                                                                      TTCCAGCATATAATGGTGGGTCTCATCCTGCCGGCATCGTCATCCTCTCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCCATATTATGTGGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGTGAAACGAGCTCCAGCCTC 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      957 CATG-AGCAGAGGCTCCAGCCTC 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BX353253.1 GI:30347726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
                                                                         563
                                                                                                                                        541
                                                                                                                                                                                                    608
                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                     899
                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 8
BX353253
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
```

240

390 300 450 360 420 570 480 630 540 675 900 735 660 795 720 855 780 915 840

120 270 180 330

9

1033

σ

567 480 627 540 672 900 732 9 792 720 852 780 912

507

g ò

```
973 CACAAGIGGAI-IICAICACCGAGGCC--IAGCIIITCIICACTGTGTGTGTGAACCCCAICI 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BX418530 Homo sapiens FETAL BRAIN Homo sapiens cDNA clone CSODF006X316 5-PRIME, mRNA sequence.
                                                                                                 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Genoscope Centre National de Sequencage Genoscope - Centre National de Sequencage Genoscope - Centre National de Sequencage BP 191 91006 EVNY cedex - France Emal: seqrefogenoscope.cns.fr, Web : www.genoscope.cns.fr Invitrogen. This sequence belongs to sequence cluster 1272.r. For more information about this cluster, see http://www.genoscope.cns.fr / cegl-bhrd.cluster.cg1seq-eCSObF0006DE08QP1&cluster=1272.r. Contact : Forgiang Email : fllang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                               448 AACTICCTAIGCAAGGCAGICCAIGICATCTACACAGICAACCICTACAGCAGIGICCIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGGGCCAAGGCCCTCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACAAGIGGAICICCAICACAGAGGCCCICGCCIICTICCACIGIIGCCIGAACCCCAIC
                                                                                                                                                                                                                                                                                              CTCCTGACTATACCTGACTTCATCTTTGCCGACGACCAGGGGGACATCAGGGG
                                                                                                                                                                                                                                                                                                                                              crecidaciarrocceacircarcirrisceaace------reacidadeaa
                                                                                                                                                                                                                                                                                                                                                                                             541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTTCGAGGAGCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          913 ATCGACTCCTTCATCCTCCTGGAATCATCAAGCAAGGGTGTGAGAGTTTGAGAACACTGTG
     AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC
                                                                                                                                           ATCCTGGCCTTCATCAGTCTGGCCTACCTGGCCATTGTCCACGCCACCAACAGTCAG
                                                                                                                                                                                                                                            ses addiciaaddahachiningachdaaaaddhahahahahachidaahicahadachic
                                                                                                                                                                                                                                                                                                                                                                                                                                               rrreadcacaredregradecraarecraecraerarrerearenecraerecraerarre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCATCATCTCTAAGCTGTCACACTCCAAGGCCCACCAGAAGCGCCACCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721 ACAGICAICCICAICCIAGCITICITIGCCIGCIGCIGCCAIAITAIGIGGGAICAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Acadroarcorcarcordecirrorrodecidridecideciraciaearrodec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC
                                                                                                                                                                                                AGGCCAAGGAAACTGCTGGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Eutele
Bukaryota, Metazoa, Chordata, Catarrhini, Hominidae, Homo.
1 (bases 1 to 1201)
1 (bases 1 to 1201)
1 (Asuber, C., Jessee, J. and Polayes, D.
Full-length cDNs libraries and normalization
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BX418530
BX418530.1 GI:30658606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1030 CTAT 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCT 904
                                                                                              361
                                                                                                                                              508
                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                              628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                               673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 10
BX418530
                                  ద
                                                                                         δ
                                                                                                                                      ď
                                                                                                                                                                                             ò
                                                                                                                                                                                                                                  .
D
                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/mol type="mRNA"
/mol type="mRNA"
/db _xref="texon:9606"
/clone="CSCDH000SYR10"
/tissue type="T CELLS (JURKAT CELL LINE)"
/clone="JURKAT CELL LINE"
/clone lib="Homo sapiens T CELLS (JURKAT CELL LINE)"
/note="Vector: DCMVSPORT 6, lst strand cDNA was primed
with a Not1-oligo(dT) primer. Five prime end enriched,
double-strand cDNA was digested with Not I and cloned into
the Not I and EcoRV sites of the pCMVSPORT 6 vector.
Library was not normalized."
                                                                                                                                                                BX462627

1201 bp mRNA linear EST 22-MAY-2003

BX462627 Homo sapiens T CELLS (JURKAT CELL LINE) Homo sapiens CDNA

clone CSODH005YK10 5-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ų,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCGTCATGGGTAAC 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                328 CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genoscope - Centre National de Sequencage
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
Bmail: seqrefégenoscope.cns.fr. Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr.
ftts.divater.cgi?seq=CSODH005BF05QP1kcluster=1272.r. Contact :
Feng Liang Email: fliang@lifetech.com URL :
http://fulllengtth.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODH005BF05QP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CICITIGICALCACGCTICCCCTICIGGGCAGTIGATGCCGTGGCAAACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     208 GAACCCTGTTTCCGTGAAGAAGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cch 38.2%; Score 647.6; DB 13; Length 1201; al Similarity 84.8%; Pred. No. 3.1e-96; 767; Conservative 0; Mismatches 119; Indels 18;
                                                                                                                                                                                                                                                                                                                                                                                                        1 (bases 1 to 1201)
Li,W.B., Gruber.C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
Unpublished (2001)
                          GGGTCMRSCTCAGATCTC 1110
                                                                                                                                                                                                                                                               BX462627.1 GI:31029445
961 AGCAGAGGCTCCAGCCTC
                                                                                                                                                                                                                                                                                                                 Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Genoscope
                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    268
                                                                                                                                                                LOCUS
DEFINITION
                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DRIGIN
```

8 8 8

S G

à d ò q

840

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

II (bases 1 to 793)

Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T., Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Theising,B., Wylie,T., Lacy,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and Waterston,R.

II WashU-HHMI Mouse EST Project
WashU-HHMI Mouse EST Project
WashU-HHMI Mouse EST Project
WashU-HHMI Mouse EST Project
WashU-HHMI Mouse EST Project
WashU-HMI Mouse EST Project
Fatt Mater Marca Mymouse EST Project
Washington University School of MedicineP
Tel: 314 286 1800
Fax: 314 286 1800
Fax: 314 286 1800
                                                                                                                                                                                                                                                                                                                     AA182270 150-JAN-1997 mRNA linear EST 06-JAN-1997 mt83/E01.rl Scares mouse lymph node NDMLN Mus musculus cDNA clone linags:636505 5' similar to gb:L06797 PROBABLE G PROTEIN-COUPLED RECEPTOR LCR1 HOMOLOG (HUMAN); mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone lib="Soares mouse lymph node NbMLN"
https="Nogan: Lymph node; Vector: pT773D-Pac (Pharmacia)
with a modified polylinker; Site 1: Not 1; Site 2: Ecc RI;
lst strand cDNA was primed with a Not I - oligo(dT) primer
                                                                                                       982 GCACAAGTGGAT-TCCATCACCAAGGCC--TAGCTTTCTYCMCTGTTGTCTGAACCCATC 1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: mouseestewatson.wustl.edu
This clone is available royalty-free through LLNL ; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
MGI:388497
                       923 CATCGACTCCTTCATCCTCCT-GGAAAYATCAAGCAAGGGTGTGAGTTTGAGAACACTGT
                                                                                GCACAAGTGGATCTCCATCACAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 793;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 621.6; DB 9;
Pred. No. 6.1e-92;
0; Mismatches 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seg primer: -28M13 rev2 from Amersham
High quality sequence stop: 497.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /tissue_type="lymph node"
/dev_stage="4 weeks"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .793
/organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      db xref="taxon:10090"
clone="IMAGE:636505"
                                                                                                                                                                                                                                                                                                                                                                                                                                                           EST.
Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                 AA182270.1 GI:1765810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 36.7%;
Best Local Similarity 92.4%;
Matches 715; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sex="male"
                                                                                                                                                                                                               1039 TCTAT 1043
                                                                                                                                                                        900 CCTCT 904
                                                                                     840
                                                                                                                                                                                                                                                                                RESULT 11
AA182270
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                        g
                                셤
                                                                                ઠે
                                                                                                                                                                   ઠે
                                                                                                                                                                                                           셤
                                                                                                                        /clone="CSODPGOSY16"
/tissue_type="FETAL BRAIN"
/tissue_type="FETAL BRAIN"
/clone_lib="Home sapiens FETAL BRAIN"
/note="Organ: brain; Vector: pCMVSPORT_6; 1st strand cDNA was primed with a Not1-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and ECORV sites of the pCMVSFORT 6 vector. Library was not normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTAC 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              922
                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGAAGAAACTGAGAAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CICITIGICALCACGCITCCCTICIGGGCAGTIGATGCCGTGGCAACTGGTACTITGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721 ACAGTCATCCTCATCCT-AGCTTTTCTTTGCCTGGCTGCCATATTATGTGGGGATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 ATATACACTICIGATAACTACTCTGAAGAAGIGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 AAATTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AACTICCIAIGCAAGGCAGICCAIGICAICTACACAGICAACCICIACAGCAGIGICCIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u> Addecanadanacrientadananadanearentarinarentaganearentaganearen </u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         crecreacratrocosacricarciridecaace------reacradeca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    743 trincháchachtanágrigachtanceracerachartancharcharachartach
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20; Caps
                                                                                                                                                                                                                                                                                                                                                                   36.9%; Score 624.6; DB 13; Length 1201; 84.3%; Pred. No. 1.8e-92; ative 4; Mismatches 118; Indels 20;
  : CSODFOO6DE08QP1
Avenue Genoscope sequence ID Location/Qualifiers
                                                  l. .1201
/organism≃"Homo Bapiens"
                                                                                     type="mRNA"
xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 84.3
Matches 763; Conservative
                                                                                     /a01
  Faraday
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            863
                                                                                                                                                                                                                                                                                                                              ORIGIN
```

D.

 $\dot{\delta}$ 

g

8 6

g ò g

ò g

ò

βp

ò

g

ö

ò

g

à g ò g 8 6

à

ÿ

g  $\delta$ Ω  $\delta$ g ò a ò g  $\dot{o}$ a ò ΩĐ ઠે g à g ð 셤 δ a ò 임 ò g

```
The WashU-HHMI Mouse EST Project
Unpublished (1996)
Contact: Warra M/Mouse EST Project
Contact: Warra M/Mouse EST Project
WashU-HHMI Mouse EST Project
WashU-HMI Mouse EST Project
WashU-HMI Mouse EST Project
WashIngton University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 1810
Fax: 314 286 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14 GGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      74 ATATAATGGTGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGCATCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     194 TCCTCATCCTAGCTTTCTTTGCCTGCTGCCATATTATGTGGGGATCAGCATCGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      254 CCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 848 GGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTCCAGCTCGAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       548 GGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             668 ICTCTAAGCTGTCACACTCCAAGGGCCACCAGGAAGGGCAAGGCCCTCAAGACGACAGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      134 TCTCTAAGCTGTCACACTCCAAGGGCCCACCAGAAGCGCCAAAGGCCCTCAAGACGACAGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          314 GGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCCAACTCCATGAGCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             374 CCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCTCATCCTAGCTTTCTTTGCCTGCTGCCATATTATGTGGGGGATCAGCATCGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 639;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 621.2; DB 9;
Pred, No. 7.4e-92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rapidly, forming contractile m
characteristic muscle proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ich
il Similarity 99.5%;
623; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S:
Matches 623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             619 bp mRNA linear EST 13-FEB-1998 vr14h02.rl Barstead mouse myocubes MPLRB5 Mus musculus cDNA clone IMAGE1.120659 5' similar to gb:L06797 PROBABLE G PROTEIN-COUPLED ARBCEPTOR LCR1 HOWOLOG (HUMAN);, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCCTCAAGATCCTTTCCAAAGGAAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCA 1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1033 GAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATATA----ATATATA 1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1089 TATATATATAAAAAAACTITITTATGITACACATTTTCCAGATATAAAGAGACTGACCA 1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1149 GTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTT 1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 639)
Marra, M., Hillier, L., Allen, M., Bowles, M., Dietrich, N., Dubuque, T., Geisel, S., Kucaba, T., Lacy, M., Le, M., Martin, J., Morris, M., Tan, F., Underwood, K., Moore, B., Theisiang, B., Wylie, T., Lennon, G., Soares, B., Wilson, R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       598 TATATATGATAGAGAGCTTTTTATGTTACACATTTTCCAGATANTAGAGACTGACCC 657
                                                                                                                                                                                                              612
                                                                                                                                                                                                                                                                                  61 Arcrereaccecerrraccecearaccererecarecrererrecarractation 120
                                                                                                                                                                                                                                                                                                                                                                        672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGCTGTCACACTCCAAGGGCCACCAGGAAGGCCTCTCAAGACGAAGT-ATCCTC 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATC 852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360 TCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTC 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCC 972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420 CTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCCAACTCCATGAGCAGAGGCTCC 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480 AG-CTCAAGATCCTTT-CAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCA 537
                                               Argeredecercecececearcarecterecteraractecarearcarer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACGACGACATCCTC 732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCCTAGCTTTCTTTGCCTGCTGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTC 792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240 Arcciaectricitric conscinente anni antica de la Arccia de Arcciaectric de la Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arccia de Arcci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCATCACAGAGGCCCTCGTCCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTC 912
                                                                                                                            9
                                                                                                  TICAATICCAGCATATA
                                                                                                                                                                                                                                                                                                                                                                    ATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGCATCATCATCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       658 AGTCTGTACACTINNTGTTTNT----AATGACTGGTGGGAGTTNATG-TCCTCTANGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIGICAGGITIGACTAAGITATATAATACCIGINNIIGITGNINGNICANGIGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA816049.1 GI:2885645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EST
                                                                                                                        Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1209
                                                                                                                                                                                                     553
                                                                                                                                                                                                                                                                                                                                                                613
                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             973
                                          193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
AA816049
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
```

ö

Gaps

607

73

667 133 727 193 787 253 847 313 907 373 967 433 1027

360 500

380 300 420

480 620 540 665 900

임

셤 ઠે

à

```
BX362477 Homo sapiens T CELLS (UURKAT CELL LINE) COT 10-NORMALIZED HOMO sapiens CDNA clone CS0DJ015YP09 5-PRIME, MRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721 ACAGICATCCICATCCIAGCTTTCTTTGCCTGCTGCTGCCATATTATGTGGGGATCAGC 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukarrota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

(Dases I to 952)

Li, W.B., Gruber, C., Jessee, J. and Polayes, D.

Full-length cDNA libraries and normalization

(Dipublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGGCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                         CIGCIGACTATICCCGACTICATCTITGCCAACG-----TCAGIAAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATGACAGATATATCTGTGTGTTCTACCCCAATGACTTGTGGGKGGKTGTGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            846 ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATMA-S
                       AAATITITIGIGIAAGGCIGICCAIATCAICIACACCIGICAACCICIACAGCAGCGITCIC
                                                                                                                                                                                                                                                                        501 Arcerdácerreareaderergacegerergaceareareaceaecadeadadage
                                                                                                                                                                                                                                                                                                                                                                                                GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             726 Trimadcamarmargerrescerrarecreecreerarrerearcierecreecrariee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGGAAGCGCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGGATGTGACTTCGAGAGCATTGTG
                                                                                                AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841 CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC
                                                                           CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
CAGAAGAAGCTAAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Genoscope General de Sequencage elenscope - Centre National de Sequencage BP 191 91006 EWRY cedex - France Email: seqref@genoscope.cns.fr Email: seqref@genoscope.cns.fr France
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BX362477.1 GI:30380640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1019 TWTGTTTYTT 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCTATGCCTT 911
                                                                                                                 381
                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                      621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
181
                                                                             241
                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 14
BX362477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                      g
                                                                                                                                                     à
                                                                                                                                                                                    셤
                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                               g
                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/mol_type="mRNA"
/db_tref="mRNA"
/db_tref="warch:9606"
/clone="CSOBGGO13-9019"
/tissue_type="B_CELLS (RAMOS CELL LINE)"
/cell_line="RAMOS CELL LINE"
/clone_lib="Homo sapiens B_CELLS (RAMOS CELL LINE)"
/clone_lib="Warch: pcMVSPORT 6; lst strand cDNA was primed
/note="Vector: pcMVSPORT 6; lst strand cDNA was primed
with a NotI-oligo(dT) primer. Five prime end enriched,
double-strand cDNA was digested with Not I and cloned into
the Not I and EcoRV sites of the pcMVSPORT 6 vector.
Library was not normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Genoscope,
Contact: Genoscope,
Contact: Genoscope,
Genoscope - Centre National de Sequencage
Genoscope - Centre National
BP 191 91006 ENRY cedex - France
Email: seqrefégenoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr,
cgi.bin/cluster.cgi?seq-CSODG003AH10QP1&cluster=1272.r. Contact :
Feng Liang Email: fliang@lifetech.com URL:
http://fullength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODG003AH10QP1.
                                                                                                                                                                                                                                                                                         BX462182 120-bp mRNA linear EST 22-MAY-2003 BX462182 Homo sapiens B CELLS (RAMOS CELL LINE) Homo sapiens cDNA clone CSDG003Y019 5-PRIME, mRNA sequence.

BX462182
120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      320
                                                                                                  554 ATATATATATAGATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAAGAGACTGACC 613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens between the contracts, Vertebrata; Buteleostomi; Bukaryota, Metazoa; Chordata; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1201) Frimates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1201) Gessee, J. and Polayes, D. Full.length cDNA libraries and normalization Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 ITCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .088 ATATATATATAAAGAACTTTTTTTTTTTCCAGATATAAAGAGACTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35.9%; Score 608.2; DB 13; Length 1201; llarity 80.1%; Pred. No. 8.6e-90; Conservative 29; Mismatches 130; Indels 22;
                                                                                                                                                         639
                                                                                                                                                                              614 AGTCTTGTACAGTTTTTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                         BX462182.1 GI:31031389
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Simi
nes 730;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                   RESULT 13
BX462182
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
```

쉱 8 d ò 용

725 960 785 720 840

us-09-367-052-7.rst

```
/organis="Homo sapiens"

mol_type="mRNA"

/db_xref="Laxon:9606"

/dlone="IMAGB:3084274"

/tissue_type="Pituitary"

/tissue_type="Pituitary"

/tab_bost="DHIOB-Ton A (T1 and T5 phage resistances)"

/clone=lib=NIH_MGC_179"

/clone="Organ: brain; Vector: pCMV-SPORT6.1; Site_1: EcoRV (destroyed); Site_2: Not1; Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.1 kb. Library was constructed by (Invitrogen). Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                       EST.

Homo sapiens (human)

Homo sapiens (human)

Homo sapiens

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

In Chases 1 to 872)

SINH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Daniela S. Gerhard, Ph.D.

Office of Cancer Genomics

National Cancer Genomics

National Cancer Genomics

National Cancer Institute / NIH

Bldg. 31 Rm10A07 Bethesda, MD 20892

Email: cgapbs-remail.ini.gov

Tissue Procurement: Dr. Michael Brownstein

CDNA Library Preparation: Invitrogen Corp

CDNA Library Preparation: Invitrogen Corp

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

High quality sequence stop: 654.

Location/Qualifiers

Location/Qualifiers
                                                                                                                                                                                                                                             AGENCOURT 14211919 NIH MGC_179 bp mRNA linear EST 22-MAY-2003 INAGE:30384274 5', mRNA sequence.
CD251331.1 GI:31011797
EST.
    ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCTACTACTACATTGGGATCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             159 GGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GETCATCCTGGTCATGGGTTACCAGAAGAACTGAGAAGCATGACGGACAAGTACAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAIGGCIGACIGGIACITIGGGAAAITITIGIGIAAGGCIGICCAIAICAICIACACIGI
                                                              721 ACAGICAICCICAICCIAGCIIITCIIIGCCIGCIGCCGCIAIIIAIGIGGGGAICAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       35.5%; Score 602.2; DB 14; Length 85.9%; Pred. No. 8.9e-89; Artive 0; Mismatches 98; Indels
                                                                                                                                                                919 ATCGACTCCTTCATCYYCTKGSAA 942
                                                                                                                                           781 ATCGACTCCTTCATCCTTTTGGGA 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 85.9
Matches 697; Conservative
                                                                                                    859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            279
                                                                                                                                                                                                                                                                            LOCUS
                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                       RESULT 15
CD251331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                          \dot{\delta}
                                                                                           셤
                                                                                                                                   \delta
                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 જ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCATCATCTTATAACTGGGATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TICAICAICTICTIGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACTGTCAGTGGCCGACCTC 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       798
                                                                                                                                                                                                                                                                                                                                                   /note:"Ist strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                                                                                                                                                                                                              COT 10-NORMALIZED"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
Library was constructed by Life Technologies, a division of Invitrogen. This sequence belongs to sequence cluster 1272.r For more information about this cluster, see http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODJO15CHO5QP1&cluster=1272.r. Contact Feng Liang Email : fliangelifetech.com URL :
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600 Faraday Avenu Genoscope sequence ID : CSODJO15CHO5QP1.
                                                                                                                                                                                         /organism="Homo sapiens"
/mol_type="mRNA"
/db_rzref="taxon:566"
/db_rzref="taxon:566"
/cell_type="T.CELLS (JURKAT CELL LINE) COT 10-NORWALIZE
/cell_tip="JurkAT"
/cell_tip="Homo sapiens T CELLS (JURKAT CELL LINE) COT
10-NORWALIZED"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATATACACTTCAGATAACTACACCGAGGAAAAGGGCTCAGGGGACTATGACTCCATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAAITITICIGIAAGGCIGICCAIAICAACIGICAACCICIAACGGGGGGTICIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 ATATACACTICIGATAACTACTCIGAAGAAGIGGGGTCTGGAGACTAIGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tricageacarcargerragecrivarecreecreerarrarererererererarrae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 35.6%; Score 603; DB 13; Length 952;
Best Local Similarity 85.2%; Pred. No. 6.4e-89;
Matches 685; Conservative 4; Mismatches 100; Indels 15; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601 TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원 상
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    상 점
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
```

Ŋ

278 120 338

```
398
                                                 240
                                                                           458
                                                                                                  300
                                                                                                                            GGGCGTCTGGATCCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAG 518
                                                                                                                                         CCAGGGGGACATCAGTCAGGGGGATGACAGTACATCTGTGACGCCTTTACCCCGATAG 578
                                                                                                                                                                                           -----TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAATGA 405
                                                                                                                                                                                                                              638
                                                                                                                                                                                                                                            CTTGTGGGTGGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCTGCTAGTAT 465
                                                                                                                                                                                                                                                                               698
                                                                                                                                                                                                                                                                                            466 TGTCATCCTGTCTGCTATTGCATTATCATCTCCAAGCTGTCACACTCCAAGGCCCACCA 525
                                                                                                                                                                                                                                                                                                                              819 ATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTT 878
                                                                                                                                                                                                                                                                                                                                                                                                                                                   646 GIGIGAGITIGAGAACACTGIGCACAAGIGGAITITCCAICACCGAGGCCCTAGCITITTT 705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   706 CCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGGAGCAAATTTAAAACCTCTG 765
CGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACAGT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGG-GCCAAGTTCAAAAGCTCTG 937
                                                                                       241 CGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGTGGTGGTGTTCTATGT
                        CAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCAT
                                                                                                                                                                                                                             CCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCAT
                                                                                                                                                                                                                                                                               CGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCCAAGGGCCACCA
                                               181 CAACCICIACAGCAGIGICCICAICCIGGCCIICAICAGICIGGACCGCIACCIGGCCAI
                                                                        CCCAGCACCCTCTCTGTGAGCAGAGG 796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      938 CCCAGCATGCACTCAACTCCATGAGCAGAGG 968
                        339
                                                                          399
                                                                                                                            459
                                                                                                                                                   301
                                                                                                                                                                           519
                                                                                                                                                                                                     357
                                                                                                                                                                                                                             579
                                                                                                                                                                                                                                                     406
                                                                                                                                                                                                                                                                               639
                                                                                                                                                                                                                                                                                                                                                                                   759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    879
                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                             요
                                                                  8
                                                                                          g
                                                                                                                                                                                               g
                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                         장염
                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                 $ 8 $
```

Search completed: May 17, 2004, 16:09:12 Job time : 4894.52 secs